westcoat®
SPECIALTY COATING SYSTEMS

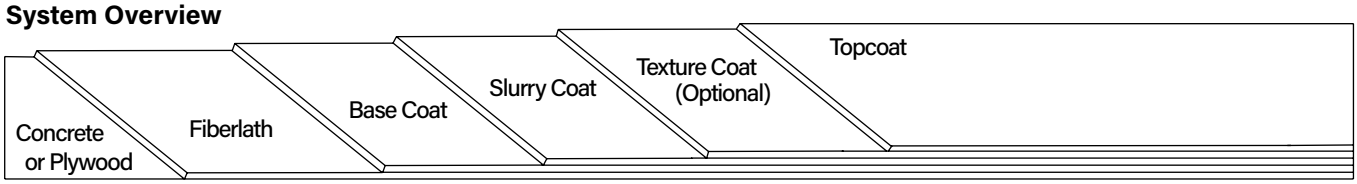
SYSTEM SPECIFICATION

WP WATERPROOF
RELIABLE MOISTURE BARRIERS

MACoat™ Standard Finish

Description
Westcoat's MACoat™ System is a fiberlath reinforced deck system installed with a series of two or three separate waterproof acrylic applications and sealed with Westcoat SC-10 Acrylic Topcoat. The finished product weighs approximately one pound per square foot. MACoat™ is a Class III permeable vapor retarder and waterproofer. It allows water vapor to migrate up and pass through the coating, while still shedding liquid water from off the top. This is different from most traditional urethane coatings, which are not permeable.

Uses
The MACoat™ System is mainly used on elevated concrete and non-fire-rated plywood walking decks. MACoat™ is designed for balconies, corridors, stairs and landings. It is regularly specified for homes, hotels, condominiums, apartments, office buildings and is suitable for parking structures with vehicular traffic. In many cases it can be applied over existing deck systems to provide an excellent method for the rehabilitation of problem surfaces.

System Overview


System Data

Coverages	Base Coat	Slurry Coat	Smooth Texture (Optional)	Knockdown Texture (Optional)	Topcoat
	220-260 ft² per batch	250-320 ft² per batch	300-350 ft² per batch	150-200 ft² per batch	200-300 ft² per gallon

Components		Shelf Life
	WP-51 Polyurethane Sealant	1-2 years
	EC-72 Epoxy Patch Gel	2 years
	WP-47H Fiberlath Heavy Duty	5 years
	WP-47A Seam Tape	1 year
	WP-90 Waterproofing Resin	2 years
	TC-1 Basecoat Cement	1 year
	SC-10 Acrylic Topcoat	2 years

ER-587 IAPMO ES®

Certifications IAPMO ER-587
Class A Fire Rating (over concrete)
Meets AC-39 Standards for Walking Decks
Meets 2020 City of Los Angeles Building and Residential Code (LABC & LARC)
VOC Emission Test Certificate - Certificate No: 170824-01

Advantages
Flexible ▪ Durable ▪ Fast Access After Installation ▪ Choice of Colors and Textures ▪ Tough Final Coat is UV Resistant ▪ Safe, Skid Resistant Textured Finish ▪ Environmentally Safe Acrylics ▪ Waterproof

DISCLAIMER: PURCHASER'S SOLE AND EXCLUSIVE REMEDY AGAINST THE MANUFACTURER OF WESTCOAT, SHALL BE LIMITED SOLELY TO THE REPLACEMENT OF ANY DEFECTIVE MATERIAL OR A PAYMENT BY THE MANUFACTURER IN AN AMOUNT EQUAL TO THE COST OF THE ORIGINAL MATERIAL.

Inspection
Concrete must be a minimum of 2 inches thick. It must be 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, porous and able to absorb water. A minimum of 28 days curing time is required on all concrete. Decks should meet local building code.

Plywood must be at least ¾ inch CDX or exterior grade and should not be Pressure-Treated. Slope must be a minimum of ¼ inch per linear foot. Decks should meet local building code. The deck should be tongue and groove properly blocked and screwed into place. Plywood shall have a maximum joist span of 16 inches. Deflection should be less than L/480. OSB is not a suitable substrate.

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.

Preparation
Prepare concrete to a profile equal to CSP 3 as specified by ICRI. Over existing coating, abrade the surface and do an adhesion test. For rough concrete, a slurry coat may be applied. Create the slurry coat by adding one gallon of WP-81 Cement Modifier and up to ½ gallon of water into a clean mixing bucket and add one bag of TC-1 Basecoat Cement. Mix until uniform with a mechanical mixer at a low rpm. Trowel the slurry mix over the surface to achieve a smooth finish. Coverage of the slurry coat is between 100-150 square feet per batch. Using a brush wet with water, feather all outside edges. After surface is dry (usually 30 minutes to 2 hours at 70 degrees), scrape or grind off any ridges or trowel marks. Applied prior to the MACoat™ installation. On plywood, be sure the surface is clean, dry and free of grease, paint, oil, dust or any foreign material that may prevent proper adhesion. “Dry” plywood is typically defined as having less than a 10% moisture reading or by showing no moisture with a plastic sheeting test. Applicator is responsible for ensuring that the substrate is acceptable for application. Do not apply to wet plywood.

Concrete Expansion Joints
Moving expansion joints should be honored and filled with a 2 part urethane sealant (approved by Westcoat). Sides of joints should be cleaned and applied per joint sealant manufacturer’s recommendation after the MACoat™ process is completed.

Concrete Seams and Cracks
Cracks greater than 1/32 inch should be routed out ¼ x ¼ inch. Install WP-47A Seam Tape over all cracks and seams. Apply EC-72 Epoxy Patch Gel into the tape with a trowel or putty knife to smooth and broadcast with 30 grit silica sand to allow adhesion of the coating. Allow EC-72 3-4 hours to cure before the next coat. This is a remedial approach to patch cracks and there is no guarantee that cracks will not reappear.

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.

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Plywood Seams
Seams should be dry and free of debris. WP-47A Seam Tape should be installed over all seams and metal flashing. Apply WP-51 Polyurethane Sealant (or EC-72 for a more ridged seam) into the tape with a trowel or putty knife to smooth. Broadcast with 30 grit silica sand to increase adhesion of the next coat.

An alternate way to minimize re-cracking of concrete and reduce movement of plywood seams is to place a 6 inch strip of WP-40 Sheet Membrane over the plywood seams or the cracks in the concrete as an anti-fracture treatment.

Primer Requirements
Priming is not required over properly prepared concrete or plywood. When coating over an existing surface, prime with EC-11 Water Based Epoxy at the rate of 300 square feet per gallon and broadcast with 30 grit or 60 grit silica sand to increase adhesion of the next coat.

Flashing
Flash at the junction of the wall and plywood deck using 4 x 4 inch flashing. Flash the fascia with 2 x 4 inch drip edge flashing. Nail all flashing every 4 to 6 inches. Use a minimum of 26-gauge bonderized sheet metal. Flashing for concrete should be set in a bed of EC-72 and nailed only as needed. The vertical portion of the wall to deck flashing should be nailed at all studs, after the epoxy base has cured. Overlap all seams at least 4 inches. Caulk between overlapped flashing as well as the seam with WP-51 Polyurethane Sealant. (Note: If the flashing is not bonderized, it must be prepared in accordance with SSPC-SP11 surface preparation standards, in order for the coating to adhere properly).

Base Coat
Lay out WP-47H Fiberlath Heavy Duty reinforcing mesh on the deck, overlapping the seams approximately 2 inches. Combine one bag of TC-1 Basecoat Cement with five gallons of WP-90 Waterproofing Resin. This mix is larger than five gallons, so if wanting to use a five gallon pail to mix, combine 25 pounds of TC-1 with 2 ½ gallons of WP-90 by volume and mix with a mechanical mixer until uniform. Pour the mixture into the WP-47H, trowel thin and smooth at the coverage rate of 220-260 square feet per batch. Use a paintbrush to spread the base coat on the flashing, making sure to get the mixture into the seams and corners. Using a brush, wet with water, feather all outside edges. Allow surface to dry for 1-4 hours at 70 degrees. Scrape off any high spots or ridges that may inhibit application of a smooth texture coat. Trim any mesh that is showing on perimeters after the material has hardened.

Note: Should deck coating not be completed in one phase or to allow for other construction trades, deck should be covered and protected to avoid being damaged and to keep clean. It may be necessary to power wash the deck to dislodge any construction debris or any other foreign matter.

Feather Patch
Smooth all seams or imperfections by mixing one bag TC-1 to five gallons of WP-90 (For five gallon pail mix, combine 25 pounds of TC-1 with 2 ½ gallons of WP-90). Patch all areas where fiberlath is not laminated flat or any visible seams or overlaps. Feather these patches with a paintbrush and water. Scrape or sand all the patches.

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Slurry Coat
Mix one bag TC-1 to five gallons of WP-90 (see Base Coat instructions for five gallon mix) and trowel the entire surface smooth and as thin as possible or at the rate of approximately 250 to 320 square feet per batch. For easier application, you may add up to 1 quart of water to help loosen up the mix. After the texture has dried (30 minutes to 1 hour at 70 degrees) lightly scrape any trowel marks and vacuum the surface clean. You can now apply the Topcoat to complete the MACoat Standard Finish system or if a textured finish is desired, you can apply one of the two optional textures as described below, prior to applying the Topcoat.

Smooth Texture (Optional)
For a smooth texture, mix one bag TC-1 to five gallons of WP-90 and trowel the entire surface smooth or at the rate of approximately 300 to 350 square feet per batch. For easier application, you may add up to 1 quart of water to help loosen up the mix. After the cement has dried (30 minutes to 1 hour at 70 degrees) lightly scrape any trowel marks and vacuum the surface clean. You are now ready to apply the Topcoat.

Knockdown Texture (Optional)
If a knockdown texture is desired, combine 1 bag of TC-3 Medium Texture Cement with 1 gallon of WP-90 Waterproofing Resin. WP-81 may be used for concrete applications. Mix thoroughly with a mechanical mixer. Add up to ½ gallon of water to achieve the desired consistency. Using an acoustical hopper gun, spray the texture onto the deck with a circular motion to achieve approximately 70% coverage at a rate of about 150-200 square feet per batch. Spray continuously, do not stop in the middle of the deck. After a few moments depending on the temperature, the texture must be "knocked down" using a rounded pool trowel for best results. Wipe the trowel clean with a wet rag as needed.

For an Orange Peel Texture, increase the air pressure and reduce the hole size of the hopper gun. Spray texture evenly at a 90% coverage. If you are unsatisfied with the results, immediately scrape off and re-spray.

After the texture has dried (30 minutes to 1 hour at 70 degrees), lightly scrape any trowel marks and vacuum the surface clean prior to applying the Topcoat. To avoid making impressions, the applicator should wear spiked shoes.

Topcoat
Do not apply if rain is forecast within 48 hours or heavy dew within 24 hours. If multiple batches of SC-10 are present, box all materials prior to use, to ensure color consistency. Use a mechanical mixer at a slow speed and mix material until a homogenous mixture and color is obtained. The material may be thinned by adding up to a maximum of one quart of water per gallon, for the first coat. For best results, it is not recommended to thin the final coat. Roll two thin applications of SC-10 using a ¾ inch roller at a rate of 200-300 square feet per gallon. Roll the material in two directions to achieve a uniform finish. Coverage will vary according to texture. For best results, allow SC-10 4-6 hours drying time at 70 degrees before permitting light pedestrian traffic or additional coats are applied. Allow 24 hours to cure before heavy traffic is permitted. Allow 48 hours before heavy objects are placed on the surface and allow 72 hours for vehicular traffic. Allow 5 days prior to any abrasion or chemical exposure.

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Optional Materials

Basecoat Options

- For increased waterproofing, when applying basecoat into fiberlath, replace WP-90 with WP-91. Mix at four gallons of WP-91 to one 50 lb bag of TC-1 and add up to 1 gallon of water to aid in application.

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.

Cement Additives

- CA-15 Cement Accelerator can be added to Westcoat cements to help reduce dry times.
- CA-16 Cement Decelerator can be added to Westcoat cements to increase working time during periods of hot weather.

Low Odor Cement Modifier

- If a lower odor cement modifier is required, WP-82 Cement Modifier Low Odor can be used in lieu of WP-81 for concrete applications.

Skid Resistance

- CA-29 Mini Safe Grip, CA-30 Small Safe Grip or CA-31 Large Safe Grip can be added to the SC-10 Acrylic Topcoat for added skid resistance.

Sloping

- Westcoat Slope Technique may be used if additional sloping is required. Please contact your Westcoat Representative for further information.

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

Clean Up

Uncured acrylic material can be removed with soap and warm water. If cured, material can only be removed mechanically or with an environmentally-safe solvent.

Maintenance

Exterior surfaces can be swept daily with water and a broom. For tougher dirt or grease, use degreaser diluted with water 20:1 and a soft bristle brush or broom. Be sure to rinse well. To remove calcium or lime build up, brush diluted 100 grain vinegar onto the surface; be sure to rinse any residue.

The MACoat™ System should be inspected for wear every 2 to 4 years. The system should be resealed with the appropriate Westcoat sealer every 3 to 5 years, depending upon traffic and UV exposure. Contact the original Installer of Westcoat for complete re-coating instructions.

Health Precautions

Inhalation of vapor or mist can cause headache, nausea, irritation of nose, throat and lungs. Prolonged or repeated skin contact can cause slight skin irritation. Cements contain silicas, dust mask or respirator should be used when mixing, sanding or grinding.

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.

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Limitations

- This system is designed for professional use only.
- Read Product Specification Sheets for every product you will be using before beginning the project.
- Do not apply at temperatures below 50°F or above 90°F.
- Rain will wash away uncured Westcoat acrylic products.
- If inclement weather threatens, cover deck to protect new application.
- Sealers will make the surface slippery, please be aware the texture of the surface and how the sealer will affect the look, feel and skid resistance.
- 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.

Test Data

Test	MACoat™ Standard over Concrete
Accelerated Aging ASTM D-756	Pass
Fire-Retardant Roof Covering ASTM E-108	Class A
One-Hour Fire Test ASTM E-119	--
Bond Strength (Control) ASTM C-297	Pass
Bond Strength (Accel. Aging) ASTM-C297	Pass
Bond Strength (Freeze-Thaw) ASTM C-297	Pass
Abrasion ASTM D-1242	.016 inches
Water Absorption ASTM D-570	3.86%
Chemical Resistance ASTM D-2299	Pass
Freeze-Thaw ASTM C-67	<1%
Concentrated Load AC-39 Section 4.12	Pass
Impact Resistance ASTM D-3746	Pass
Surface Burning Characteristics ASTM E84-17	Class B
Permeance (perms) ASTM E96/E96M-10	4.92 perms

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