

TOTAL FINISHED THICKNESS

3/16"

APPROVALS

- Class A Fire-Retardant Roofing System
- IAPMO Evaluation Report # 517

MATERIAL STANDARDS

- AC-39/Section 4.3
- AC-39/Section 4.8
- ASTM 1242A
- ASTM C-109
- ASTM C-297
- ASTM C-67-03a
- ASTM C-794
- ASTM D-2047
- ASTM D-2240
- ASTM D-412
- ASTM D-570
- ASTM D-756
- ASTM E-108

SPECIFICATION CLASSIFICATIONS

- 07 55 56 Fluid-Applied Protected Membrane Roofing
- 07 55 53 Elastomeric Protected Membrane Roofing
- 07 25 00 Weather Barriers
- 07 19 00 Water Repellents
- 07 16 13 Polymer Modified Cement Waterproofing
- 07 14 16 Cold Fluid-Applied Waterproofing
- 07 18 13 Pedestrian Traffic Coatings

MATERIALS NEEDED

- MK-52 Mer-Ko Epoxy Patch Gel
- MK-72 Mer-Ko Seam Tape
- MK-5 Shur Deck Cement
- MK-90 Polyurethane Caulking
- MK-80 Mer-Ko Burlap (10" Roll)
- MK-25 Mer-Ko Membrane
- MK-75 Mer-Ko Lath (38" Roll)
- MK-40 Mer-Ko Topcoat

USES/APPLICATIONS

- Exterior Walking Roof Decks
- Observation Decks
- Promenade Decks & Balconies
- All Pedestrian Traffic Areas
- Walkways & Breezeways

SUBSTRATES

Shur Deck can be installed over properly prepared concrete substrates.

SYSTEM DESCRIPTION

Shur Deck (over Concrete) is a multi-layer, cementitious roof and walking deck system designed for use over concrete substrates. This system consists of cementitious filler, reinforced flexible latex waterproofing membrane and acrylic sealer. This waterproofing membrane incorporates an anti-microbial component. A performance additive that inhibits the growth of mold and mildew on the membrane surface and in damp environments. Installed at a minimum 3/16 inch finished thickness, this seamless, trowel applied system provides longterm durability and waterproofing protection over concrete substrates.

ADVANTAGES

- Seamless & monolithic
- Will not soften under high temperatures
- Resists degradation from UV, ozone and weathering
- Outstanding long-term durability and performance
- Solvent-free
- Environmentally friendly
- One Cement System
- Class A Fire-Retardant Roofing System

AESTHETIC FINISHES/TEXTURES

Traditional trowel and broom finishes are available. In addition, design options such as skip trowel texturing, trowel knock-down, stippling, stenciling, etc. are also available. This wide array of finish options provides unlimited aesthetic design.

SKID-RESISTANCE

Skid-resistance can be increased by applying a knock down or orange peel type of texture. In conjunction, the use MK-86 Mer-Ko Slip Resistant Additive is recommended with the application of the Topcoat, to enhance skid-resistance.

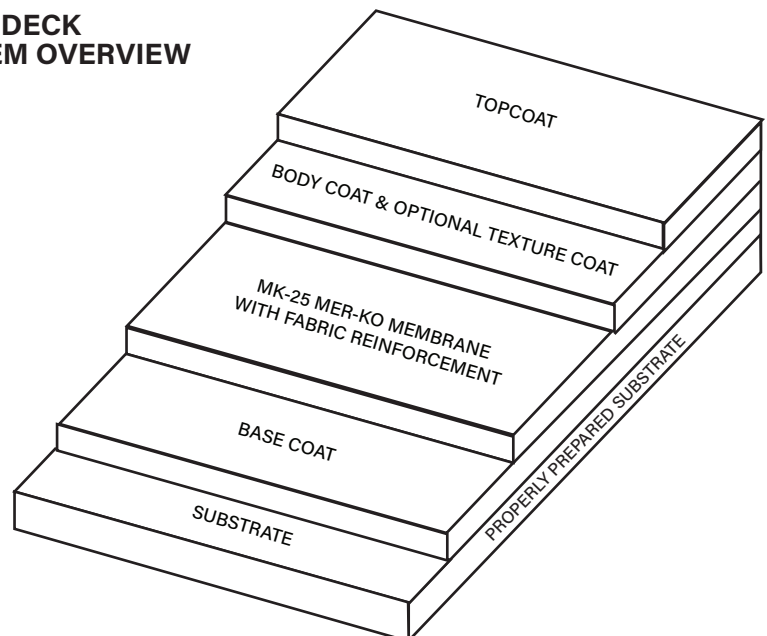
COLORS

MK-40 Mer-Ko Topcoat is available in 9 colors and features a semi-gloss sheen. Refer to the Mer-Ko Color chart for color selections.

ER-517



SHUR DECK SYSTEM OVERVIEW



COVERAGES

Coverage rates are approximate only and can vary greatly due to surface conditions, humidity, temperature and installation techniques.

BASE COAT

MK-5 Shur Deck Cement
80-90 ft² / bag

MEMBRANE WITH FABRIC REINFORCEMENT (FLASHING)

MK-25 Mer-Ko Membrane
100-150 ft²/ gallon under the MK-80
MK-80 Mer-Ko Burlap (10" Roll)
300 LFT/roll
MK-25 Mer-Ko Membrane
50 ft²/ gallon (Yield 20 mil DFT) on top of the MK-80

MEMBRANE WITH FABRIC REINFORCEMENT (DECK)

MK-25 - 1st Application
65 ft²/ gallon (Yield 15 mil DFT)
MK-75 Lath (38" Roll)
475 ft²/roll
MK-25 - 2nd Application
150 ft²/ gallon (Yield 5 mil DFT)

BODY COAT (*Two Coats)

MK-5 Shur Deck Cement
1st Coat - 90 ft²/50 lb. bag mix
2nd Coat - 90 ft²/50 lb. bag mix

TEXTURE COAT (OPTIONAL)

MK-5 Shur Deck Cement
200 ft²/50 lb. bag mix

TOPCOAT (Two Coats)

MK-40 Mer-Ko Topcoat
1st Coat - 300 ft²/ gallon
2nd Coat - 200 ft²/ gallon

Additional topcoat material may be required for textured or skid resistant finishes

INSTALLATION CONDITIONS

The Shur Deck system must not be installed if the surface or ambient temperature is or will drop below 55°F or rise above 90°F within 24 hours or when precipitation is expected or occurring.

SUBSTRATE INSPECTION AND PREPARATION**CONCRETE**

Concrete must be clean, dry and free of laitance, grease, paint, oil, dust, curing agents or any foreign material that will prevent proper adhesion. The concrete should be at least 3,000 psi, porous and able to absorb water. A minimum of 28 days cured is required on all concrete. Before starting flooring work, test existing concrete for efflorescence, moisture and hydrostatic pressure. If moisture emissions exceed 3 lbs/1000 square feet (ASTM F1869) or if the relative humidity (RH) exceeds 75% (ASTM F2170), please refer to Westcoat's EC-15 Moisture Vapor Barrier Product Specification Sheet.

PREPARATION

Concrete shall be prepared by water blasting, grinding or shot blasting as required to produce a clean, sound substrate, equal to a minimum CSP 3 per ICRI. All holes shall be cleaned and filled with MK-5 Shur Deck Cement or MK-10 Mer-Ko Underlayment Cement. All high spots shall be removed by chipping or grinding. Concrete control joints shall meet local building codes and comply with industry standards.

APPLICATION INSTRUCTIONS

In each step of the application, always be sure that the previous coat has fully dried before applying the next coat. Read all instructions before starting application.

CONCRETE EXPANSION JOINTS

Moving expansion joints should be honored and filled with a 2 part urethane sealant (approved by Mer-Ko). Sides of joints should be cleaned and applied per joint sealant manufacturer's recommendation after the Shur-Deck process is completed.

CONCRETE SEAMS AND CRACKS

Cracks greater than 1/8 inch should be routed out 1/4 x 1/4 inch. Install Mer-Ko MK-72 Seam Tape over all cracks and seams. Apply Mer-Ko MK-52 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 3-4 hours for the MK-52 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

All holes shall be cleaned and filled with MK-5 Shur Deck Cement or MK-10 Mer-Ko Underlayment Cement. Please refer to the appropriate Product Specification Sheet for additional information.

FLASHING

Flash at the junction of the wall and deck using 4 x 6 inch flashing. Flash the fascia with 2 x 4 inch drip edge flashing. Use a minimum of 26-gauge bonderized sheet metal. Flashing for concrete should be set in a bed of Westcoat's 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 MK-90 Polyurethane Caulking. (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).

PRIMER REQUIREMENTS

Priming is not required over properly prepared concrete. Surface should be primed by dampening with clean water. Surface should be saturated surface dry (SSD) with no standing water present when applying material.

BASE COAT

The Base Coat consists of 1 gallon of water to one 50 lb. bag of MK-5 Shur Deck Cement. Blend with a mechanical mixer for 2-3 minutes, until an even consistency is achieved. Trowel the material over the properly prepared concrete at a rate of 80-90 ft² per mix. The minimum thickness of the Base Coat should be 1/8 inch thick. Brush the mix smoothly onto the flashing and all vertical surfaces while applying the Base Coat to the horizontal surface. The Base Coat must be allowed to dry for a minimum of 8 hours at 70°F/50% RH or until dry to the touch before moving to the next step. Remove minor surface imperfections by lightly scraping or sanding. Be sure to remove all debris prior to commencing with the next step.

MER-KO MEMBRANE WITH FABRIC REINFORCEMENT (FLASHING)

Install MK-80 Mer-Ko Burlap (10") to all vertical flashings. Apply a coat of MK-25 Mer-Ko Membrane onto the vertical surface and onto the adjacent horizontal surface by using a brush or roller at a rate of 100-150 ft² per gallon. Immediately embed the MK-80 burlap, fuzzy side down, into the wet MK-25, overlapping successive runs of fabric edges and ends, a minimum of 2 inches. Apply a coat of MK-25 at a coverage rate of 50 ft² per gallon over the MK-80. Make sure the burlap is fitted tightly in corners and around protrusions. Apply additional MK-25 as necessary over the burlap fabric areas to ensure positive waterproofing is completely covering the burlap. The waterproofing membrane should be a minimum of 20 mils DFT.

SYSTEM COMPONENTS

- Mer-Ko MK-52 Epoxy Patch Gel
½ gal and 2 gal kits available

- MK-72 Mer-Ko Seam Tape
100 LF Roll (3"x100')

- MK-5 Shur Deck Cement
50 lb bag

- MK-80-10 Mer-Ko Burlap (10" Roll)
10"x 300' - 250 ft²

- MK-25 Mer-Ko Membrane
5 gal pail

- MK-75 Mer-Ko Lath (38" Roll)
38"x 150' - 475 ft²

- MK-40 Mer-Ko Topcoat
5 gal pail

- (Optional)
- MK-86 Slip Resistant Additive
32 ounce container
- MK-6 Shur Deck Fine Cement
50 lb bag

MER-KO MEMBRANE WITH FABRIC REINFORCEMENT (DECK)

Install the MK-75 Mer-Ko Lath to the horizontal surfaces. Roll out the MK-75 and cut to size. Lay the lath "curl side" down over the Base Coat. Overlap successive runs of MK-75 edges and ends a minimum of 2 inches. Pour the MK-25 Mer-Ko Membrane onto the MK-75 and trowel smooth and back roll, completely covering the MK-75. The coverage rate of the MK-25 in this application is 65 ft² per gallon. Apply additional MK-25 as necessary over areas to ensure positive waterproofing. Apply an additional coat of the MK-25 over the entire surface at a rate of 150 ft² per gallon by trowel or roller. Let dry a minimum of 24 hours before applying the Body Coat. Applications in elevated or high humidity conditions will require additional dry time. Waterproofing membrane shall be a total of at least 15 mils Dry Film Thickness.

BODY COAT

The Body Coat is applied in two coats. Mix 1 gallon of water to one 50 lb. bag of MK-5 Shur Deck Cement. Blend with a mechanical mixer for 2-3 minutes, until an even consistency is achieved. Trowel the material over the dry membrane surface at a rate of 90 ft² per mix. Brush the mixed material onto the flashing and all vertical surfaces where bonding will occur and trowel apply to the entire deck surface as smooth as possible. Allow the first coat to dry for a minimum of 2 hours before applying the second coat. Repeat the process for the 2nd coat as mentioned above. An optional texture coat may be applied on top of the second application of the Body Coat. The Body Coat must be allowed to dry for a minimum of 2 hours at 70°F/50% RH or until dry to the touch before moving to the next step. Remove minor surface imperfections by lightly scraping or sanding. Be sure to remove all debris prior to commencing with the next step.

TEXTURE COAT (OPTIONAL):

An optional Texture Coat is prepared by mixing 1 gallon of water with each bag of MK-5 Shur Deck Cement. The Texture Coat is applied to the surface at a rate of 200 ft² per bag. Allow the Texture Coat to dry a minimum 2 hours at 70°F, 50 percent relative humidity and then sand the surface to produce the desired level of finish. Ensure all dust and debris has been removed. For a smoother Texture Coat, MK-6 Shur Deck Fine Cement may be used in lieu of MK-5. The same application instructions and coverage rates from the MK-5 apply to the MK-6 Shur Deck Fine Cement.

TOPCOAT

The MK-40 Mer-Ko Topcoat is applied in two coats. Thin the 1st coat with 25% water and apply at the rate of 300 ft² per gallon. Allow to dry for 2 hours at 70°F, 50 percent relative humidity. The 2nd coat must be applied neat. Apply the second coat of the MK-40 perpendicular to the first at the rate of 200 ft² per gallon. Allow 6 to 8 hours to dry before returning to light service and 24 hours for normal service (70°F, 50 percent relative humidity). For small areas or in locations with cool temperatures, one coat of the MK-40 may be applied at 150 to 175 ft² per gallon.

SLIP RESISTANT ADDITIVE (OPTIONAL)

To enhance skid resistance, mix 1 quart (32 ounces by volume) of MK-86 per 5 gallons of MK-40 Mer-Ko Topcoat (apply to the 2nd of the two coats). This will leave a consistent texture that is still fairly easy to clean. The actual slip resistance will be greatly affected by the existing texture of the surface you are covering and the thickness of the topcoat applied. Do not exceed this amount without consulting Mer-Ko.

CAUTIONS & LIMITATIONS

- Mer-Ko waterproof deck systems are designed for professional installation.
- System warranties require installation by currently listed applicators.
- In freezing climates, sufficient pitch is required to ensure run-off.
- When installing a deck system over an unheated enclosed space (e.g., garage, etc.) provisions must be made to vent the area.
- Drains must be of a design suitable to receive the Shur Deck system.
- Concrete substrates must have a minimum compressive strength of 3,000 psi tested by "point loading" technique.
- Shur Deck provides moderate chemical resistance. Avoid exposure to harsh chemicals or acids.
- Heavy objects can affect the decking system and result in hairline cracks at the surface of the system. Avoid placing heavy objects on or dragging them across the Shur Deck surface.
- Cementitious materials should be used within 30 minutes, do not re-temper.
- Always apply MK-35 Mer-Ko Primer after the smoothing coat and between any system layers that have cured for more than 72 hours.
- The MK-25 Mer-Ko Membrane should not be exposed for more than 72 hours prior to being covered with the Body Coat.
- Do not leave any layer unprotected for more than 30 days prior to completing the full system installation, including the final topcoat application.
- Not designed for vehicular or heavy steel wheeled traffic.
- Protect all finished surfaces that are not intended to receive the deck coating system materials.
- Rain will wash away uncured Mer-Ko acrylic products.
- If inclement weather threatens, cover deck to protect new application.
- Sealers will make the surface slippery. Please be aware of 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.

PHYSICAL CHARACTERISTICS

Abrasion Resistance (ASTM 1242A, AC-39 Wheel, 1,000 mg load for 1,000 cycles)
0.001 inch loss

Adhesion (ASTM C794)
> 374 psi

Compressive Strength (ASTM C109)
3,500 psi

Elongation (ASTM D638)
0.04 ft./ft.

Fire Rating
Class A Fire-Retardant Rated (ASTM E-108)

Ozone Resistance No visual adverse effects
after 30 days exposure

Resistance to Aging (ASTM G23, AC-39)
2,000 hours No visual signs of failure

Tensile Strength (ASTM C190)
>450 psi

Thickness
 $\frac{3}{16}$ inch

Water Absorption (ASTM D570, AC-39/S4.8)
Average 9.0%

Weight
< 2 lbs/ft²

Wind Resistance
80 mph

Freeze/Thaw Cycling (ASTM C67)
No breakage or weight loss

CARE & MAINTENANCE

Shur Deck is designed to provide easy cleanability and low maintenance. To extend the life of the deck to its maximum potential, establish a regular cleaning schedule using a mild soap and water solution, TSP (Tri Sodium Phosphate) or similar Products (check suitability before using). Use a stiff broom or scrub brush to remove any contaminants on the surface of the deck. Rinse thoroughly with clean water after scrubbing. Do not use solvents to remove contaminants as this may cause damage to the deck surface. The Mer-Ko Topcoat is designed to resist direct exposure to environmental elements and withstand normal wear. When traffic patterns become visible or heavy impacts mar the surface, the topcoat should be re-applied to restore aesthetic appeal.

Decks should be re-sealed every 3 years or sooner for best results or per the schedule listed on the warranty issued. The functionality of the Shur Deck system is not impacted by aesthetic imperfections. Refer to Cementitious Care & Maintenance Instructions for more detailed information on proper care and maintenance.

STORAGE & HANDLING

Store all Shur Deck materials off the ground in a dry environment at temperatures between 50°F and 90°F and not in direct sunlight. All materials should be stored in compliance with local fire and safety requirements. Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/or applying these products.

SHELF LIFE

Product shelf life for most products is six (6) to twelve (12) months from the date of manufacture when properly stored in the original, unopened container. Refer to individual Product Specification Sheets for specific storage and shelf life information.

WARRANTY

Standard five (5) year warranties are available depending upon product selection and project design. Contact Mer-Ko Customer Service Department for specific warranty information.

SLIP PRECAUTION

Mer-Ko 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. Mer-Ko 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.

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.

DISCLAIMER

Purchaser's sole and exclusive remedy against the manufacturer of Mer-Ko, 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.