

COLPHENE® H-EV

COLPHENE H-EV is a 100% solids waterproofing membrane that comes in a 43 lb. carton and is applied using a flat squeegee. It is ideal for large, non-exposed horizontal concrete waterproofing applications such as plaza decks.

HEALTH & SAFETY

The contractor shall ensure compliance with OSHA, EPA and other local governing and disposal authorities for project-related safety and environmental requirements. Prior to application, persons handling or applying COLPHENE H-EV membrane should familiarize themselves with the applicable Product Data Sheets (PDS), Safety Data Sheets (SDS), specifications, and application guidelines. Refer to product SDS for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with specified exposure limits where required. The applicator is responsible for ensuring conditions are appropriate to proceed and proper application methods are followed.

When applying COLPHENE H-EV membrane typical exposure levels will be below OSHA permissible limits for most outdoor applications. When required, air monitoring should be performed by a qualified person to identify any hazards. If respiratory protection is required, use a NIOSH approved air-purifying respirator.

APPLICATION GUIDELINES

STORAGE & HANDLING

Store materials in a clean, dry area. Protect materials during handling and application to prevent damage or contamination. Store cartons off the ground, preferably on a pallet to prevent packaging from become wet and damaged. Cover as necessary to protect from environmental damage. Although COLPHENE H-EV is not damaged by high ambient temperatures, the product may soften and deform the packaging making it harder to handle. Monitor varying environmental conditions during storage, handling and application of COLPHENE H-EV.

EQUIPMENT LIST

- Double-jacketed melter
- Flat squeegees
- 3/8" nap rollers for primer application
- HD roller frames
- Extension handles for rollers and squeegees
- Gloves with ability to handle 350 F material
- Safety glasses
- Long sleeve shirts for zero skin exposure
- Blower and/or brooms

EQUIPMENT

Use double-jacketed, hot air or oil bath melter with mechanical agitation, specifically designed for hot-applied, rubberized asphalt materials. Maintain oil-bath at approximately 500°F and material temperature at 380°F to 400°F, with constant agitation. Overheating causes the COLPHENE H-EV to cross-link which causes the material to build up on the walls of the melter and cannot be used.

HEATING

Melter warm-up should start early enough to have hot fluid material when the work is scheduled to start. Cold weather start-up will take longer. Discard the outer polyethylene wrapper. The inner polyethylene wrapper is placed in melter with material. When material is molten, start agitator drive motor and continue to run while melter is in operation. Continue to replace COLPHENE H-EV through the melter as needed and do not leave unrotated product at elevated temperatures for more than 2 hours.

SUBSTRATE PREPARATION

All substrates must be clean, dry, and free from gross irregularities, loose, unsound, or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of the material to the substrate. Release agents and curing compounds must be removed prior to application of COLPHENE H-EV.

Concrete shall be fully cured and in place for a minimum of 28 days with a minimum of 2500 psi. Application may only occur when the moisture is at 5.0 % or less. Moisture can be measured with a non-destructive moisture meter. The concrete must be an ICRI Concrete Surface Profile of CSP-3 to CSP-4.

Vertical surfaces with voids, ridges or fins should be repaired or cut flush with the wall surface. All surfaces must be free of loose mortar and laitance.

Metalwork must be in place, securely attached and cleaned of all process oils with a solvent cleaner to be free of rust and other contaminants. Wire brush to a bright metal finish prior to priming.

DETAILING

1. Cracks 1/16" wide or less shall be pretreated by priming the area with ELASTOCOL 500 primer 8" to either side of the crack. When primer has dried tack-free, apply a 125-mil thickness of COLPHENE H-EV 6" to either side of the crack.

2. For cracks greater than 1/16" wide, prime with ELASTOCOL 500 primer 8" to either side of crack. When primer has dried tack-free, apply 125 mil thickness of COLPHENE H-EV 6" from to either side of the crack and embed a minimum 12" wide strip of SOPRAFLASH UN into the hot material. Adhere ends of SOPRAFLASH UN together with a minimum of 6" overlapping and 125 mils of COLPHENE H-EV. Ensure the installation is free of fish mouths and wrinkles and then apply an additional 125 mil detail coat of COLPHENE H-EV over the entire SOPRAFLASH UN.

3. For all expansion joints consult your SOPRE-MA Representative.

4. Vertical to horizontal junctures – Apply primer a minimum of 10" onto the horizontal and vertical substrate. When primer has dried tack-free, apply 90 mil thickness of COLPHENE H-EV 8" onto the vertical and a minimum of 4" onto the horizontal and embed a minimum 12" wide strip of SOPRAFLASH UN into the hot material. Adhere ends of SOPRAFLASH UN together with a minimum of 6" overlapping and 125 mils of COLPHENE H-EV. Ensure the installation is free of fish mouths and wrinkles and then apply an additional 125 mil detail coat of COLPHENE H over the entire SOPRAFLASH UN.

5. Penetrations such as pipes through the deck shall be rigidly fastened on both sides of the deck whenever possible. Clean the exposed metal with a wire brush and a solvent wipe. Apply ELASTOCOL 500 primer 8" out onto the concrete beyond the pipe and at least 4" up the penetration and allow to dry. Install a 1" x 1" cant of COLPHENE H-EV. Install fully reinforced COLPHENE H-EV system using SOPRAFLASH UN 8" up penetration and 10" onto horizontal. Penetration may require stainless steel clamping rings.

6. Drains shall be operational and recessed with the deck sloped to drain. Apply ELASTOCOL 500 primer 10" beyond edge of drain and 3" into drain. Install a 90-mil detail coat of COLPHENE H-EV extending 8" beyond drain and 3" into a blocked drain. Embed SOPRAFLASH UN into the first 90-mils of COLPHENE H-EV. Install a complete 215 mils system of COLPHENE H-EV. A membrane clamping ring is required for drains.

NOTE: When ALSAN RS Trafik 730 FLASH is selected as the flashing system for COLPHENE H-EV applications instead of SOPRAFLASH UN refer to the ALSAN RS Trafik 730 documents for the proper detail.

INSTALLATION

1. Primer: Install ELASTOCOL 500 using a solvent resistant roller, bush, or airless spray. Allow ELASTOCOL 500 to dry before installing COLPHENE H-EV.

2. 1ST Lift: Install 90 mils of COLPHENE H-EV to the dry primer with a flat squeegee.

3. Reinforcement Fabric: Immediately install SOPRAFLASH R into the tacky 1st lift to ensure membrane strike through. Overlap SOPRAFLASH R a minimum of 1" to allow for complete coverage of the COLPHENE H-EV.

4. 2nd Lift: Install 125 mils of COLPHENE H-EV over the SOPRAFLASH R with flat squeegee.

5. Membrane Testing: Leak detection methods can be performed using electronic field vector mapping using the ASTM Standard D7877 or flood testing using ASTM D5957. Membrane must be fully cured and tested with a minimum 1" of water for 24 hours.

6. SOPRADRAIN 104: A protection course is required. Refer to specification for your protection and drainage layer selection.

7. SOPRA-XPS Insulation: Refer to specification for the required compressive strength and R-Value.

8. Overburden Assemblies: Refer to specification or contact your local SOPREMA representative for proper selection of specified overburden assemblies.

CLEANUP

Mechanically remove cooled material as much as possible. Any residual material can be cleaned with xylene or similar solvent.