

COLPHENE® LM BARR SPRAY

COLPHENE LM BARR Spray is a liquid-applied waterproofing membrane that can be applied with a roller, a squeegee, or spray application equipment, and is ideal for vertical and horizontal non-exposed concrete waterproofing.

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 LM BARR Spray membrane should familiarize themselves with the applicable Product Data Sheets (PDS), Safety Data Sheets (SDS), specifications, and application instructions. 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 LM BARR Spray 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

Containers should be stored unopened until ready for use. Store material above 60°F (16°C) but less than 95°F (35°C) for optimum shelf life. Storage outside of the recommended guidelines for extended time could affect the performance of the material. Store away from any sparks or open flames.

EQUIPMENT LIST

- 3/8" to 3/4" Nap rollers of varying lengths
- Properly sized flat squeegee
- Extension handles
- Mil thickness gauges
- Gloves
- Safety glasses
- Jiffy mixer paddle
- High power corded drill capable low speed mixing (250 - 500rpm)
- Spiked shoes
- Blower and/or brooms

ENVIRONMENTAL CONDITIONS

Environmental conditions such as temperature, dew point, humidity, precipitation, sun, cloud cover, wind, and shade will affect the application and cure rate of COLPHENE LM BARR Spray. Monitor and confirm all environmental conditions are satisfactory to begin work and remain so during application of the components and materials.

- Do not apply COLPHENE LM BARR Spray if precipitation is anticipated 2 hrs. after application.
- Generally, application may proceed when ambient and surface temperature is minimum 40°F (4°C) and rising providing the substrate is a minimum of 5°F (-15°C) above the dew point temperature, and the substrate is clean and dry.

SELECTING SPRAY EQUIPMENT

COLPHENE LM BARR Spray is a low to medium viscosity product for use with high pressure & volume spray equipment designed to handle high solids materials. COLPHENE LM BARR Spray can be applied with spray systems meeting the following criteria:

Capable Working Pressure:

Up to 4000psi (27.6 MPa)

Pump Delivery Rate:

4.0 GPM

Tip Orifice:

0.041 (1mm)

Tip Flow Rate:

1.8 gal/minute

Fan Width @ 24" from surface:

16"- 18"

Pressure @ point of delivery:

2500psi minimum

Hose Length & ID:

Up to 150 feet, Max. ½" ID

Band type drum heaters designed for 50 gallon drums should be used to pre-condition and maintain product at or above the recommended minimum temperature of 70°F (21°C) for optimum application.

The following system has been field tested and approved for use with COLPHENE LM BARR Spray: GRACO GH 833 hydraulic airless sprayer and GRACO Flow Gun with XHD RAC Spray Tip #841, and a 150 ft hose with ½" ID.

A whip hose, gun swivel, 30" tip extension, 180° tip swivel and 50-gallon drum direct immersion kit are recommended for ease of application when working from 50-gallon drums. Other spray equipment not evaluated by SOPREMA may also provide acceptable performance.

Please consult the equipment manufacturer for their recommendations and application guidelines. SOPREMA recommends referring to the equipment manufacturer recommendations for appropriate use and maintenance of all spray equipment and accessories. Contractor must use his or her own knowledge, experience and judgement when selecting equipment and accessories for application of COLPHENE LM BARR Spray and all SOPREMA products.

MIXING

COLPHENE LM BARR Spray in 50 gallon drums or totes is suitable for spray application direct from the supplied drum or tote packaging without mixing and **MUST NOT** be mixed or thinned with solvents, water or foreign material. If a pre-stir is desired use a drum mixer carefully to ensure not to create a vortex on the surface that could introduce unneeded air into the material.

COLPHENE LM BARR Spray in 5 gallon pails should be mixed prior to application using a Jiffy mixing paddle and a high powered drill at low speed (250-500rpm) for 3 minutes making sure to stir from the bottom to the top of the pail for a homogeneous mixture prior to application being sure not to create a vortex on the surface that could introduce unneeded air into the material.

SPRAY EQUIPMENT START-UP

Prior to starting up equipment, ensure that all equipment is clean. Carefully read and follow the equipment manufacturer's operating and safety instructions and familiarize yourself with equipment features. Ensure that all components and accessories have a capacity and pressure rating meeting the pump manufacturer's specifications. Insert siphon hose/immersion tube into supply drum bung and seal around hose/tube with plastic or other acceptable material to reduce exposure to air.



When required, apply band type drum heater to maintain product temperature during application. Select a test area and begin to spray. Pressure directly affects the spray pattern and typically requires adjustment to match field conditions. Set the pressure so that the gun provides a clean spray pattern about 16 inches wide at the point of contact with the substrate when sprayed from a distance of 12 to 24 inches.

SUBSTRATE PREPARATION

Verify substrate condition before spray application. Applicators should protect all surfaces that are not to be coated. Mask off sensitive areas (such as windows) and be prepared to clean off any COLPHENE LM BARR Spray overspray before the material hardens using alcohol or a water-free solvent.

All substrates must be clean and dry to the touch, as well as 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 resin materials to the substrate. Release agents and curing compounds must be removed prior to application of COLPHENE LM BARR Spray.

Concrete Surface Profile should be CSP-3 to CSP- 4. All CMU must have flush joints with no voids. Any concrete protrusion should be struck flush. Voids need to be filled in with an approved SOPREMA'S material to be flush with surface.

For "green concrete" applications, concrete should cure a minimum of 3 to 7 days depending on ambient conditions, be dry to the touch and free of standing water.

TYPICAL COVERAGE RATES FOR CONCRETE

Mil Thickness	sqft/gal
60	26
90	17.5
120	13
180	8.5

DETAILING

1. Cracks 1/16" or less shall be pretreated prior to placement of COLPHENE LM BARR Spray. Apply a 60 mil detail coat COLPHENE LM BARR Spray or COLPHENE LM BARR FLASHING a minimum of 6" to each side of the crack. Allow detail coat to cure enough to not be displaced during application of the COLPHENE LM BARR Spray.

2. Cracks greater than 1/16" wide shall be routed to a min. 1/4" wide by 1/4" deep. Place bond breaker tape on the bottom of the routed crack and fill with COLPHENE LM BARR FLASHING. Allow COLPHENE LM BARR FLASHING to cure overnight. Apply detail coat of properly mixed COLPHENE LM BARR Spray at 60 mils a minimum of 6" to each side of the routed crack. Allow detail coat to cure enough to not be displaced during application of the COLPHENE LM BARR Spray.

3. All expansion joints consult your SOPREMA Representative.

4. Vertical to horizontal junctures install a 1" fillet bead of COLPHENE LM BARR FLASHING. Allow COLPHENE LM BARR FLASHING to cure overnight. Install a 60-mil detail coat of COLPHENE LM BARR Spray minimum of 8" onto the vertical and 4" onto the horizontal. Allow detail coat to cure enough to not be displaced during application of the COLPHENE LM BARR Spray.

5. Inside corners 1" fillet bead of COLPHENE LM BARR FLASHING. Allow COLPHENE LM BARR FLASHING to cure overnight. Apply detail coat of properly mixed base coat at 60 mils a minimum of 6" to each side of the corner. Allow detail coat to cure enough to not be displaced during application of the COLPHENE LM BARR Spray.



6. Penetrations such as pipes through the deck shall be rigidly fastened on both sides of the deck whenever possible. Mechanically abrade penetrations to ensure a clean and dry substrate. Seal with COLPHENE LM BARR FLASHING creating a cove bead around the base of the pipe with a minimum of 1" onto the penetration and the deck. Allow the COLPHENE LM BARR FLASHING to cure overnight. Apply detail coating at 60 mils over the cove bead 8" onto the vertical and 4" onto the horizontal. Allow detail coat to cure enough to not be displaced during application of the COLPHENE LM BARR Spray.

7. Drains shall be operational and recessed with the deck sloped to drain. Drains to be detailed with COLPHENE LM BARR FLASHING creating a seal between the deck and the drain. Block drain and apply 60 mils of COLPHENE LM BARR Spray down into the drain a minimum of 3" and onto deck a minimum of 12". Allow detail coat to cure enough to not be displaced during subsequent applications of the COLPHENE LM BARR Spray.

8. Stops and starts – All prior day material terminations should be free of contaminants and overlapped a minimum of 6" with the new day's application of material. Where COLPHENE LM BARR Spray has been left exposed for more than 72 hours, or has become dirty, clean the existing COLPHENE LM BARR Spray surface using a clean cloth and xylene solvent.

VERTICAL APPLICATION

COLPHENE LM BARR Spray is applied in a single application. Terminate a minimum of 6" above the grade line unless membrane will be exposed then terminate a maximum of 3" below grade line. At the footer, terminate COLPHENE LM BARR Spray over the 1" fillet bead of COLPHENE LM BARR FLASHING and detail coat of COLPHENE LM BARR Spray onto the base of the footer.

For tie-ins to COLPHENE BSW pre-applied waterproofing products, or air barrier SOPRASEAL products refer to the appropriate tie-in details on our website at www.soprema.us.

SOPRA-XPS 30 insulation may be installed using adhesive backed insulation pins adhered to the cured COLPHENE LM BARR Spray. Adhesive backed pins are recommended to avoid penetrating the waterproofing membrane.

SOPRADRAIN 100 series prefabricated drainage may be installed over the insulation or directly over the COLPHENE LM BARR Spray. SOPRADRAIN 100 series products can be hung using a termination bar at the top of the wall where the fasteners will not penetrate the waterproofing membrane. The SOPRADRAIN 100 series may also be held in place until back filled with a spot application of COLPHENE LM BARR FLASHING.

VERTICAL APPLICATION

Single lift applications up to 120 mils of COLPHENE LM BARR Spray can be applied in a single application. When a reinforcement layer with a two-lift application of COLPHENE LM BARR Spray of 215 total mils is required, apply the first lift of 90 mils and immediately install POLYFLEECE® directly into the wet membrane. Allow the first lift with reinforcement to set up about 1 hour then apply a second lift of 125 mils of COLPHENE LM BARR Spray to encapsulate the POLYFLEECE.

For tie-ins to other COLPHENE waterproofing products, or air barrier SOPRASEAL products refer to the appropriate tie-in details on our website at www.soprema.us.

SOPRA-XPS insulation or other protection course may be installed over the cured COLPHENE LM BARR Spray.



SOPRADRAIN 100 series prefabricated drainage may be installed over the insulation or protection course, or directly over the COLPHENE LM BARR Spray. SOPRADRAIN 100 series products can be loose laid over horizontal waterproofing membranes. SOPRADRAIN 100 series products may also be held in place using a spot application of COLPHENE LM BARR FLASHING.

SPRAY "TIPS"

When spraying, continue to keep the spray gun as close to a 90° angle to the substrate as possible, ensuring full coverage of the substrate and overlap spray patterns to ensure uniform coverage and avoiding the creation of pinholes. In multi-coat applications and with repairs, for best results apply additional coats as soon as the first coat is firm.

CURING

Product cure time will vary from minutes to hours depending upon applied film thickness, temperature and relative humidity (RH). Typical cure is 3 hours per 30 mils at 70°F (21°C) and 50% RH and an overnight cure is recommended before backfilling at these temperatures. The wait time may be longer in lower temperatures and humidity.

CLEANUP

Hand tools and uncured material can be cleaned with cleaning solvents such as Soprema's ALSAN RS Cleaner or an alcohol like IPA. Cured material must be mechanically removed.

Follow the spray equipment manufacturer's cleaning recommendations for cleaning your spray pump. It is important to clean spray equipment after use with a solvent such as xylene or ALSAN RS Cleaner. Cured COLPHENE LM BARR Spray is difficult to remove and will affect subsequent equipment performance.

