



Mastics, Coatings, Adhesives, Sealants

# CP-30 Low Odor CHIL-PERM<sup>®</sup> Vapor Retarder Coating Product Data Sheet

## VAPOR RETARDER COATING FOR INDOOR APPLICATIONS

### DESCRIPTION

CHIL-PERM<sup>®</sup> CP-30LO is an extremely effective, vapor retarder coating for all low temperature applications. In the wet state, it has an unusual consistency that allows it to be buttered-on in relatively heavy films can be brushed out into thin films. It is made with an elastomeric resin which yields a tough, yet flexible, dry film with excellent adhesive properties.

### USES

CHIL-PERM<sup>®</sup> CP-30LO is a fire-resistive, flexible coating in the dry state for all types of thermal insulations in cold and dual temperature service. As an indoor, vapor retarder coating, it is used to vapor seal fittings, piping and equipment insulated with fibrous glass, polyurethane foams and other low temperature insulation materials. **It is not to be used in direct contact with polystyrene foams.** CP-30LO is used as a vapor retarder at the butt joints of pipe and block insulation where intermediate vapor stops are required. CP-30LO is also used to seal the joints of foil-faced boards and other factory vapor-sealed insulation material and where pins and staples puncture insulation vapor retarder facings.

### APPLICATION

CHIL-PERM<sup>®</sup> CP-30LO is easy to apply by brush; even though it is a solvent-based coating, its ease of workability is comparable to many water emulsion coatings. It may also be applied by heavy-duty, airless spray. It has excellent bridging properties and will deliver a smooth finish even over relatively rough substrates. It is normally applied with a glass fiber reinforcing mesh such as CHIL-GLAS<sup>®</sup> #10.

### ADVANTAGES

- CHIL-PERM<sup>®</sup> CP-30LO is easy to apply, and its buttery consistency makes it easy to achieve a continuous film free of pinholes.
- The cured film is tough, yet flexible, and is resistant to many acids and alkalis. It is washable.
- CP-30LO is white and matches most white vapor retarder jackets.

### CERTIFIED

- Meets NFPA Standard 90A and 90B 25/50 requirements.
- Qualifies under Coast Guard Specification 164.012.
- This product has been tested according to ASTM E84 (Surface Burning Characteristics of Building Materials).

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### COLOR

White

### WET WEIGHT (ASTM D1475)

9.9 lbs./U.S. gal. (1.19 kg/liter)

### AVERAGE NON-VOLATILE (ASTM D2369)

39% by volume (59% by weight)

### SERVICE TEMPERATURE RANGE

Temperature to which dry film is subjected.  
-40°F to 190°F (-40°C to 88°C)

### APPLICATION TEMPERATURE RANGE

40°F to 100°F (4°C to 38°C)

### DRYING TIME

Drying time will vary depending upon film thickness, temperature and humidity.

To Touch: 8 Hours

Through: 24 – 36 Hours

### FLASH POINT

107°F (42°C)

### COVERAGE

Varies with substrate and reinforcing membrane.  
4 U.S. gal./100 sq. ft. (1.6 l/m<sup>2</sup>)

### CLEAN UP

Non-flammable: Chlorinated Solvents

Flammable: Xylene

### WATER VAPOR PERMEANCE (TYPICAL AVERAGE)

ASTM E96, PROCEDURE B: < 0.02 perms at a 0.02-inch film thickness.

CHIL-PERM<sup>®</sup> CP-30LO meets the permeance requirements of ASTM C755-19 for below ambient vapor retarder coatings.

### SURFACE BURNING CHARACTERISTICS (ASTM E84)



#### GENERAL PURPOSE COATING SURFACE BURNING CHARACTERISTICS

Applied to 1/4" Inorganic Reinforced Cement Board	
Flame Spread:	10
Smoke Developed:	10
Rate per Coat (sq. ft./gal.):	25
Number of Coats:	1
Flash point of liquid coating (closed cup):	126°F

282U

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For vapor sealing insulation on low temperature equipment, chilled water or refrigerated piping and fittings:

Insulation on all equipment, fittings, valves, flanges, piping and other surfaces shall be vapor sealed with CHIL-PERM® CP-30LO Vapor Retarder Coating. The first coat shall be a tack coat applied at a coverage rate of 2 U.S. gals./100 sq. ft. (0.81 l/m<sup>2</sup>). While still wet, a layer of CHIL-GLAS® #10 Glass Fiber Reinforcing Mesh shall be embedded with all fabric seams overlapped a minimum of 2 inches (5.08 cm). A finish coat at a coverage rate of 2 U.S. gal./100 sq. ft. (0.81 l/m<sup>2</sup>) shall be applied so that the total wet film thickness is a minimum of 0.060" (1.5 mm). This will provide a minimum dry film thickness of 0.025" (0.6 mm). NOTE: For exterior applications, ENCACEL® V CP-45 (spray) or ENCACEL® X CP-40 (trowel) vapor retarder coating should be used.

## NOTES TO SPECIFYING ENGINEER

1. CHIL-PERM® CP-30LO Vapor Retarder Coating is white and should be specified where white Kraft paper faced foils are specified or canvas and white lagging adhesive coatings are specified on the adjoining pipe or equipment insulation.
2. CHIL-BYL® CP-76 Joint Sealant is recommended for use with CHIL-PERM® CP-30LO Coating. The use of CHIL-JOINT® CP-70 Sealant is not recommended due to solvent incompatibility.
3. Since vapor flow is from areas of high temperature to areas of low temperature, extreme caution should be exercised when using solvent-based materials on equipment operating below ambient temperature.

## Application Guide and Suggested Procedures

### 1. USE OF MATERIAL

CHIL-PERM® CP-30LO Vapor Retarder Coating looks like mayonnaise. It has a false body; it looks very heavy and yet applies quite easily. DO NOT THIN. CHIL-PERM® CP-30LO is easily applied by brush or glove. When applying vapor sealing materials, it is essential that sufficient film thickness be achieved. Therefore, do not try to spread the CHIL-PERM® CP-30LO too thin. It is recommended that it not be applied below 40°F (4°C) nor above 100°F (38°C). CHIL-PERM® CP-30LO Coating is manufactured with volatile and flammable solvents. Do not apply or use near open fire or flames, and do not use near welding operations. Keep the container tightly closed when not in use. Use only in well-ventilated areas. Avoid prolonged breathing of vapors and prolonged or repeated contact with skin.

### 2. THE CONDITION OF THE INSULATION TO BE COATED

Since CHIL-PERM® CP-30LO Coating is an excellent vapor retarder, it should never be applied over insulation containing moisture. Dusty or porous substrates should first be primed with CHIL-SEAL® CP-50A MV1 Adhesive diluted 50% with water for proper bonding. Allow primer to dry completely.

### 3. HINTS FOR SUCCESS

A vapor retarder system is no better than its weakest link. It is extremely important that where the finish terminates at an uninsulated point that the finish of CHIL-PERM® CP-30LO Coating and CHIL-GLAS® #10 Reinforcing Mesh be flashed over the uninsulated section for a minimum of 4" (10.16 cm). Where there is a possibility of the temperature of the uninsulated section exceeding 190°F (88°C) due to steam-out or other heated applications, the vapor sealing at this joint shall be accomplished by using CHIL-BYL® CP-76 Joint Sealant.

Where CHIL-PERM® CP-30LO is being used as an intermediate vapor retarder or joint sealer in plastic foam materials, it is suggested that much of the solvent be allowed to evaporate before the joint is closed to eliminate excessive shrinkage in the joints. Certain joint sealants, asphalt compounds or other coatings might bleed through CHIL-PERM® CP-30LO Coating. User should test before using.

CP-30LO should not be used in direct contact with polystyrene foam insulations. Always test for reactivity with other types of plastic foams as well.

CHIL-PERM® CP-30 LO Coating is self-leveling. Do not overwork when brushing. Make certain this product is completely dry and the area free from product odor if food is involved.

### 4. SPRAY APPLICATION

CHIL-PERM® CP-30LO Coating may be sprayed with many types of equipment, including airless spray. Many manufacturers of spray equipment can make detailed recommendations for any number of types of equipment. The spray equipment and techniques would be similar to those used for applying block sealers. For best results, we suggest the following airless spray equipment:

PUMP:	Graco Bulldog Hydramastic, 40:1 ratio (model 204-925) air regulator with inductor plate (207-039).
COMPRESSOR:	Capable of 75 CFM and maintaining 100 PSIG.
FLUID HOSE:	High pressure capable of 4,000 PSI. 1" up to 150 feet. ¾" after the first 150 feet. Use 8' (2.4 m) ½" ID hose for coupling to the gun (hoses should be solvent resistant).
GUN:	Graco Hydra-Mastic #207-300 with Reverse-A-Clean 205-614, with 627 to 635 tip.

## CUSTOMER SERVICE: (800) 832-9002

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