

Mastics, Coatings, Adhesives, Sealants

# CHIL-PERM® CP-30 Low Odor Vapor Barrier Coating

#### VAPOR BARRIER COATING FOR INDOOR APPLICATIONS

#### **DESCRIPTION**

CHIL-PERM® CP-30 LO is an extremely effective vapor barrier coating for all low temperature applications. In the wet state, it has an unusual consistency which allows it to be buttered-on in relatively heavy films, or it 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 CP-30 LO Vapor Barrier Coating, in the dry state, is a fire resistive, flexible coating for all types of thermal insulations in cold and dual temperature service. As an indoor vapor barrier 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-30 LO coating is used as a barrier at the butt joints of pipe and block insulation where intermediate vapor stops are required. CP-30 LO coating is also used to seal the joints of foil-faced boards and other factory vapor sealed insulation material, and also where pins and staples puncture insulation vapor barrier facings.

#### **APPLICATION**

CHIL-PERM CP-30 LO Vapor Barrier Coating is easy to apply by brush; even though it is a solvent-type of 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 give a smooth finish even over relatively rough substrates. It is normally applied with a glass fiber reinforcing mesh such as Chil-Glas® #10.

#### **ADVANTAGES**

- CHIL-PERM CP-30 LO Vapor Barrier Coating is easy to apply and its buttery consistency makes it easy to achieve a continuous film, free of pin-holes.
- The cured film is tough, yet flexible, and is resistant to many acids and alkalis. It is washable.
- CP-30 LO is white and matches most white vapor barrier jackets.

#### **CERTIFIED**

- Meets NFPA Standard 90-A and 90-B 25/50 requirements.
- Qualifies under Coast Guard Specification 164.012.
- This product has been tested according to ASTM E-84 (Surface Burning Characteristics of Building Materials).

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#### COLOR

White (Other colors are available on special order.)

#### **WET WEIGHT**

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

#### **AVERAGE NON-VOLATILE**

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**

To Touch–8 hours
Through–24-36 hours

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

#### **FLASH POINT**

107°F (42°C)

#### **COVERAGE**

4 U.S. Gals./100 sq. ft. (1.6 l/sq. m) (Varies with substrate and reinforcing membrane.)

#### CLEAN-UP

Non-flammable-Chlorinated Solvents Flammable-Xylene

#### WATER VAPOR PERMEANCE (ASTM E-96)

ASTM E-96 Procedure B, Less than 0.02 perms at 0.02 inch film thickness.



## GENERAL PURPOSE COATING SURFACE BURNING CHARACTERISTICS

Applied to ¼" Inorganic Reinforced Cement Board
Flame Spread: 10
Smoke Developed: 10
Rate per Coat (Sq.ft/gallon): 25
Number of Coats 1

Flash point of liquid coating (closed cup): 126 F 282U

08/09

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### Suggested Specifications

## CHIL-PERM® CP-30 LO

#### 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-30 LO Vapor Barrier 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/sq. m). 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. gals./100 sq. ft. (0.81 l/sq. m) shall be applied so that the total wet film thickness is a minimum of 0.060". This will provide a minimum dry film thickness of 0.025" (0.6mm). NOTE: For exterior applications, ENCACEL® V CP-45 (spray) or ENCACEL® X CP-40 (trowel) vapor barrier coating should be used.

#### **NOTES TO SPECIFYING ENGINEER**

- CHIL-PERM CP-30 LO Vapor Barrier Coating is white and should be specified where white Kraft paper faced foils, or canvas and white lagging adhesive coatings are specified on the adjoining pipe or equipment insulation.
   CHIL-BYL® CP-76 Joint Sealant is recommended for use with
- 2. CHIL-BYL® CP-76 Joint Sealant is recommended for use with CHIL-PERM CP-30 LO 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-30 LO Vapor Barrier Coating looks like mayonnaise. It has a false body; it looks very heavy and yet applies quite easily. DO NOT THIN. It is essential in applying vapor sealing materials that sufficient film thickness be achieved. Therefore, do not try to spread the CHIL-PERM CP-30 LO Vapor Barrier Coating too thin. It is recommended that it not be applied below 40°F (4°C) nor above 100°F (38°C). CHIL-PERM CP-30 LO 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-30 LO coating is an excellent vapor barrier, it should never be applied over insulation containing moisture. Dusty or porous substrates should first be primed with CHIL-SEAL® CP-50AMV1 adhesive diluted 50% with water for proper bonding. Allow primer to dry completely.

#### 3. HAND APPLICATION

CHIL-PERM CP-30 LO Vapor Barrier Coating is easily applied by brush or glove.

#### 4. HINTS FOR SUCCESS

A vapor barrier 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-30 LO coating and CHIL-GLAS #10 Glass Fiber Reinforcing Mesh be flashed over the uninsulated section for a minimum of 4" (10.16cm). 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-30 LO Vapor Barrier Coating is being used as an intermediate vapor barrier 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 coating might bleed through CHIL-PERM CP-30 LO coating. User should test before using. CHIL-PERM CP-30 LO Vapor Barrier Coating 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.

#### 5. SPRAY APPLICATION

CHIL-PERM CP-30 LO 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. One inch

up to 150 feet. 3/4 inch after the first 150 feet. Use 8' (2.4 m) 1/2" I.D. hose for coupling to the gun. (Hoses should be solvent resistant.)

Graco Hydra-Mastic #207-300 with Reverse-A-

Clean 205-614, with 627 to 635 tip.

#### CUSTOMER SERVICE: 800-231-9541

GUN:

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ADEQUATE TESTS: The information contained herein we believe is correct to the best of our knowledge and tests. The recommendations and suggestions herein are made without guarantee or representation as to results. We recommend that adequate tests be performed by you to determine if this product meets all of your requirements. The warranted shelf life of our products is six months from date of shipment to the original purchaser.

For professional use only. Keep out of reach of children.

Consult Material Safety Data Sheet and container label for further information.