



Mastics, Coatings, Adhesives, Sealants

# ENCACEL® X CP-40 Vapor Barrier Coating

## VAPOR BARRIER AND WEATHERPROOFING COATING FOR INTERIOR AND EXTERIOR APPLICATIONS

### DESCRIPTION

ENCACEL® X CP-40 is an elastomeric polymer-based coating designed for the protection of thermal insulation. ENCACEL X CP-40 Vapor Barrier Coating has good vapor barrier properties as well as excellent resistance to chemicals, low temperature flexibility, and superior adhesive characteristics.

### USES

ENCACEL X CP-40 Vapor Barrier Coating provides a tough, flexible, fire-resistant finish. It is recommended for hot and cold exterior applications where the chemical environment necessitates additional protection.

**It is not to be used in direct contact with polystyrene foam insulation.** It may be used with most other types of insulation.

### APPLICATION

ENCACEL X CP-40 Vapor Barrier Coating is applied by trowel. It has excellent bridging properties and will provide a smooth finish, even over relatively rough substrates. For optimum results it is suggested that ENCACEL X CP-40 Vapor Barrier Coating be stored at a minimum of 50°F (10°C). For spray or brush applications, the use of ENCACEL V® CP-45 Vapor Barrier Coating is recommended.

Outdoor horizontal surfaces must always drain completely. A pitch of at least 1/2" per foot (4 cm/m) is recommended.

### ADVANTAGES

- ENCACEL X CP-40 Vapor Barrier Coating has excellent tensile and elongation properties, which, coupled with good adhesive and cohesive qualities, make it especially suitable for equipment or systems that cycle.
- ENCACEL X CP-40 Vapor Barrier Coating will not check or crack in exterior applications.
- The cured film of ENCACEL X CP-40 Vapor Barrier Coating is fire-resistant and tough, yet flexible.
- It is resistive to many acids and alkalis.

### CERTIFIED

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

CP-40 contains no asbestos, lead, mercury, or mercury compounds.

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### COLOR

CP-40 White, Trowel/Glove  
CP-40-1 Gray, Trowel/Glove  
Other colors available on special order.

### WET WEIGHT

10.4 lbs./U.S. gal.  
1.3 kg/liter

### AVERAGE NON-VOLATILE

40% to 44% by volume, 60% by weight.

### SERVICE TEMPERATURE RANGE

(Temperature to which dry film is subjected.)  
-50°F to 220°F  
-46°C to 104°C

### APPLICATION TEMPERATURE RANGE

40°F to 100°F  
4°C to 38°C

### DRYING TIME

Touch—5 hours  
Through—48 hours  
(Drying time will vary depending upon film thickness, temperature and humidity.)

### COVERAGE

5 gal./100 sq. ft.: (2.0 l/sq. m)  
Varies with substrate and membrane

### CLEAN-UP

Xylene

### WATER VAPOR PERMEANCE

ASTM F 1249, 0.03 perms at 30 mils dry. Tested at 100°F (38°C) and 90% RH.



### GENERAL PURPOSE COATING SURFACE BURNING CHARACTERISTICS

Applied to 1/4" Inorganic Reinforced Cement Board	
Flame Spread:	10
Smoke Developed:	15
Rate per Coat (Sq.ft/gallon):	25
Number of Coats	1
Flash point of liquid coating (closed cup):	125 F (51.7 C)
	282U

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## GENERAL SPECIFICATIONS

Mastic finish over insulation shall be ENCACEL® X CP-40 Vapor Barrier Coating. It shall be applied in two coats, the first coat being a tack coat applied at a coverage rate of 2 U.S. gallons per 100 sq. ft. (.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" (5.08 cm). A finish coat, at a coverage rate of 3 U.S. gallons per 100 sq. ft. (1.22 l/sq. m), shall then be applied. There shall be no voids or holidays, and the mastic shall be troweled or wet-brushed to a smooth, even finish. When applied in this fashion, the wet film thickness shall equal .090", and the resulting dry film will equal at least .038".

All adjoining uninsulated surfaces must be completely waterproofed and flashed by extending the ENCACEL X CP-40 Vapor Barrier Coating and glass fiber reinforcing mesh a minimum of 4" (10.16 cm) onto the adjoining surfaces. If those surfaces will attain temperatures between 180°F and 300°F (82°C to 149°C), use CHIL-BYL® CP-76 Joint Sealant as the flashing

compound. **When using a solvent Vapor Barrier Coating such as ENCACEL X CP-40, the joint sealant to be used shall be CHIL-BYL CP-76. CHIL-JOINT® CP-70 Joint Sealant should not be used for this application.**

1. For areas subject to severe mechanical or physical abuse, tack coat coverage shall be 4 U.S. gallons per 100 sq. ft. (1.62 l/sq. m). The finish coat shall be applied at a coverage rate of 4 U.S. gallons per 100 sq. ft.
2. **Alternate Finish for Cryogenic Design:** Tack coat coverage shall be 3 gallons per 100 square feet (1.62 l/sq.m). Glass fiber reinforcing mesh shall be CHIL-GLAS #10. A second coat shall be applied at a coverage rate of 4 gallons per 100 sq. ft. (1.62 l/sq. m). After a minimum 24 hour drying time, an additional coat of ENCACEL X CP-40 Vapor Barrier Coating shall be applied at a coverage rate of 4 U.S. gallons per 100 sq. ft. (1.62 l/sq. m).

## Application Guide and Suggested Procedures

### 1. USE OF MATERIAL

ENCACEL X CP-40 Vapor Barrier Coating is designed for trowel or palm applications. **DO NOT THIN.**

ENCACEL X CP-40 Vapor Barrier Coating, being solvent based, is not harmed by freeze-thaw cycling. Applications at temperatures below 40°F (4°C) will, however, inhibit its normal drying cycle. ENCACEL X CP-40 Vapor Barrier Coating will not freeze; however, it is recommended that long-period storage be done in a heated area.

For large surface areas, ENCACEL V CP-45 Vapor Barrier Coating is available for spray application.

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

The best coating in the world is no better than the surface to which it is applied. **Know the type and condition of the substrate.**

ENCACEL X CP-40 is a Vapor Barrier Coating. It should **never** be applied over damp or wet insulation.

ENCACEL X CP-40 Vapor Barrier Coating can be used over hot insulation, but the following procedures must always be undertaken:

A) Surface to be coated must be thoroughly dry.

B) To assure proper bonding, fibrous and calcium silicate type insulations should be primed with Childers® Chil-Seal CP-50A MV1 diluted 50% with water. The Chil-Seal CP-50A MV1 Adhesive must be completely dry before applying ENCACEL X CP-40 Vapor Barrier Coating.

### 3. APPLICATION

ENCACEL X CP-40 Vapor Barrier Coating can be applied with trowel or glove. It is not self-leveling, but a smooth finish may be obtained by smoothing the surface with a clean brush dampened with detergent foam.

In applications where insulation has been fabricated with asphalt as the adhesive, or where asphalt has been used as a joint sealant, there may be discoloration of the ENCACEL X CP-40 Vapor Barrier Coating film. This discoloration will not affect the overall physical properties of the dry film.

## CUSTOMER SERVICE—800-832-9002

IMPORTANT: H.B. Fuller Construction Products Inc. warrants that each of its products will be manufactured in accordance with the specifications in effect on the date of manufacture. WE MAKE NO OTHER WARRANTIES AND EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If a product fails to meet this limited warranty, purchaser's sole and exclusive remedy is replacement of the product or, at our option, refund of the purchase price. OUR ACCEPTANCE OF ANY ORDERS FOR THE PRODUCT IS EXPRESSLY CONDITIONAL UPON PURCHASER'S ASSENT TO THE TERMS ON THE APPLICABLE INVOICE.

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.**