



Mastics, Coatings, Adhesives, Sealants

# CP-34

## Vapor Retarder Coating

Product Data Sheet

### INDOOR & OUTDOOR, WATER-BASED, VAPOR RETARDER COATING

#### DESCRIPTION

CP-34 is a water-based, vapor retarder coating for use over many types of thermal insulation including polystyrene foam. It is ideal for use over ASJ, FRK and FSK jackets and board facings to provide a vapor retarding seal at joints, laps and weld pin punctures.

CP-34 is formulated for indoor and outdoor, commercial use. It has a mild, latex "paint-type" odor and is designed for use on pipes, vessels, ducts and equipment operating between 32°F (0°C) and ambient temperatures.

CP-34 has a WVTR rating in the range of other competitive water-based, vapor retarder coatings. For heavier duty commercial or industrial use, select Childers® CHIL-LOW™ CP-38.

#### LIMITATIONS

Store and apply between 40°F (4°C) and 100°F (38°C); protect from freezing until dry.

Always test foil and paper facings for acceptable adhesion before using.

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

To resist rain wash-off, allow at least 16 hours drying time above 50°F (10°C), with a relative humidity of 50%. Higher humidity and/or lower temperature may retard drying.

#### CERTIFIED

- MAS Certified Green®
- California Dept. of Public Health Standard Method v1.2
- VOC Emissions and Content requirements to contribute to **LEED v4** EQ Credit: Low Emitting Materials – Paints and Coatings
- VOC Content: 38 g/l, less water and exempt solvents
- Collaborative for High Performance Schools EQ 7.1
- Meets NFPA Standard 90A and 90B 25/50 requirements when used to seal seams and punctures in vapor retarder facings and jacketing
- This product has been tested according to ASTM E84 (Surface Burning Characteristics of Building Materials)



#### COLOR

White

#### AVERAGE WET WEIGHT (ASTM D1475)

11.5 lbs./gal. (1.38 kg/liter)

#### AVERAGE NON-VOLATILE (ASTM D2369)

48% by volume (62% by weight)

#### SERVICE TEMPERATURE LIMITS

Temperature at coated surface.  
-20°F to 180°F (-29°C to 82°C)

#### DRYING TIME (23°C) 50% RH

To Touch: 4 Hours  
Through: 24 Hours

#### COVERAGE

Subject to the surface being coated. Wet coverages are for smooth, non-porous surfaces. Porous or rough surfaces will require higher gallonage to attain required dry thickness.  
4 gallons/100 sq. ft. (1.6 l/m<sup>2</sup>) 0.064 in. wet thickness (1.6 mm)

#### WATER VAPOR PERMEANCE (TYPICAL AVERAGE)

Tested with reinforcing mesh.

ASTM F1249: 0.08 perms at 45 mils dry film thickness. Tested at 100°F (38°C) and 50% RH.

ASTM E96, PROCEDURE A: 0.08 perms at 44 mils dry film thickness. Tested at 72°F and 50% RH.

Meets the permeance requirements of ASTM C755-19, Section 7.2.2 for below ambient vapor retarder coatings when used as a closure mastic in conjunction with ASJ and other vapor retarder membranes.

#### WET FLAMMABILITY

Flash Point: None to boiling, 212°F (100°C)

#### SURFACE BURNING CHARACTERISTICS (ASTM E84)

Flame Spread: 5  
Smoke Developed: 30  
Surface: Inorganic reinforced cement board  
Number of Coats: 1  
Coverage: 25 sq. ft./gal. (Applied in a 4 inch wide strip)  
Flash point of liquid coating (closed cup): No flash to boiling

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# Suggested Specifications

# CP-34 Vapor Retarder Coating

## To seal seams, overlaps, punctures, penetrations and terminations of vapor retarder membrane jacketing:

The insulation on all piping, fittings and equipment shall be vapor sealed with Childers® CP-34 Vapor Retarder Coating. The first coat shall be a tack coat applied at a coverage rate of 2 U.S. gals./100 sq. ft. (0.8 l/m<sup>2</sup>). While still wet, a layer of CHIL-GLAS® #10 Glass Fiber Reinforcing Mesh shall be embedded, with all seams overlapped a minimum of 2" (5.08 cm). A finish coat at a coverage rate of 2 U.S. gals./100 sq. ft. (0.8 l/m<sup>2</sup>) shall be applied so that the total wet film thickness is a minimum of 0.064". This will provide a minimum dry film thickness of 0.032".

## NOTES TO SPECIFYING ENGINEER

1. Childers® CP-34 Vapor Retarder Coating is white in color and should be specified where white All Service Jacketing (ASJ), canvas or other white coatings/finishings are specified on the adjoining pipe or equipment insulation.
2. Do not use over copper clad wire.
3. All horizontal surfaces must be sloped at least 1/2 inch per foot (4 cm/m) to assure water run-off and prevent the ponding of rain water and melting snow or ice.

## Application Guide and Suggested Procedures

### 1. USE OF MATERIAL

Stir well. DO NOT THIN. Apply only to clean, dry, oil-free surfaces. Keep container closed when not in use.

### 2. APPLICATION – INDOOR AND LIGHT DUTY OUTDOOR

To prevent water vapor and moisture infiltration, proper and complete flashing is required. Follow flashing specifications.

To seal seams, overlaps, punctures, penetrations and terminations of vapor retarder membrane jacketing:

1. Apply tack coat of CP-34 Vapor Retarder Coating at 2 gallons per 100 sq. ft. (0.8 l/m<sup>2</sup>).
2. Embed CHIL-GLAS® #10 Glass Fiber Reinforcing Mesh into the wet tack coat. Smooth membrane to avoid wrinkles and overlap all seams at least two inches (5 cm). Apply finish coat of CP-34 Vapor Retarder Coating within 1/2 hour of the tack coat application, at 2 gallons per 100 square feet (0.8 l/m<sup>2</sup>).
3. This application shall provide a minimum dry thickness of 31 mils (0.8 mm).

### 3. BRUSH

Use a good brush, suitable for water-based paints, making strokes as long as possible over the surface. Apply with full brush and spread out evenly. Do not overwork.

### 4. SPRAY

CP-34 Vapor Retarder Coating may be airless spray applied. For spray equipment information, please consult Airless Spray Recommendations or contact your spray equipment supplier. Average viscosity range: 85,000 – 110,000 cps. Corrosion resistant pumps and fittings are suggested.

### 5. CLEAN UP

Use fresh water to clean brushes and equipment before product dries. Dry product may be removed with hot soapy water (with ammonia added) or strong solvents such as chlorinated solvent (non-flammable) or xylol (flammable).

## CUSTOMER SERVICE: 833-849-3700

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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 twelve months from date of shipment to the original purchaser or as otherwise provided on the certificate of analysis.

**For professional use only. Keep out of reach of children.  
Consult Safety Data Sheet and container label for further information.**