

INDOOR & OUTDOOR WATER-BASED, VAPOR RETARDER COATING

DESCRIPTION

CHIL-LOW™ CP-38 is a water-based, high solids, flexible, vapor retarder coating for use over many types of thermal insulation including polystyrene foam. It can also be used over dry concrete and insulating cement to provide a vapor retarder coating.

CHIL-LOW™ CP-38 is formulated for indoor and outdoor, commercial use and light duty, industrial use. It is UV resistant and has a mild, latex "paint type" odor. CP-38 is designed for use on pipes, vessels, ducts and equipment operating at cryogenic up to ambient temperatures. It is non-flammable in the wet state and fire resistive when dry.

CHIL-LOW™ CP-38 is ideal for use over ASJ, FRK and FSK jackets and board facings to give a vapor retarding seal at joints, laps and over staples and weld pin punctures. It can also be used as a duct board closure sealant.

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 12 hours drying time above 50°F (10°C), with a relative humidity of 50%. Higher humidity and/or lower temperature may retard drying.

Do not apply over 1/8" (3.2 mm) wet film thickness.

Select CHIL-LOW™ CP-38 in white color for use over polystyrene insulation outdoors. May weather to an off-white color after exposure.

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: 33 g/l, less water and exempt solvents
- Collaborative for High Performance Schools EQ 7.1
- Meets the requirements for MIL-PRF-19565C, Type II using method ASTM E96, Procedure A permeance and is QPD listed
- Contains no asbestos, lead, mercury or mercury compounds

COLOR

White

WET WEIGHT (ASTM D1475)

11.5 lbs. (1.38 kg/liter)

AVERAGE NON-VOLATILE (ASTM D2369)

58% by volume (70% by weight)

SERVICE TEMPERATURE LIMITS

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

DRYING TIME 73°F (23°C), 50% RH

To Touch: 4 Hours

Through: 24 Hours

COVERAGE

Subject to the surface being coated. Wet coverages shown below 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/m²) 0.064 in. wet thickness (1.6 mm)

WATER VAPOR PERMEANCE (TYPICAL AVERAGE)

Tested with reinforcing mesh.

ASTM E96, PROCEDURE A:

0.05 perms (0.03 metric perms) at 47 mils dft (1.2 mm)

0.03 perms (0.02 metric perms) at 73 mils dft (1.9mm)

ASTM F1249: 0.08 perms (0.05 metric perms) at 37 mils dry film thickness (0.94 mm). Tested at 100°F (38°C) and 90% RH.

Meets the permeance requirements of ASTM C755-19 for below ambient vapor retarder coatings.

WET FLAMMABILITY

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

SURFACE BURNING CHARACTERISTICS (ASTM E84)

Flame Spread: 15

Smoke Developed: 30

Surface: Inorganic reinforced cement board

Number of Coats: 1

Coverage: 25 sq. ft./gal. in 4" strip



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

The insulation on all piping, fittings, and equipment shall be vapor sealed with Childers® CP-38 CHIL-LOW™ 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/m²). 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/m²) shall be applied so that the total wet film thickness is a minimum of 0.064" (1.6 mm). This will provide a minimum dry film thickness of 0.037" (0.9 mm).

NOTES TO SPECIFYING ENGINEER

1. Childers® CP-38 CHIL-LOW™ 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.

1. Apply tack coat of CP-38 CHIL-LOW™ Vapor Retarder Coating at 2 – 4 gallons per 100 square feet (0.8 – 1.6 l/m²).
2. Embed CHIL-GLAS® #10 Membrane 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-38 CHIL-LOW™ Coating, within 1/2 hour of the tack coat application, at 2 gallons per 100 square feet (0.8 l/m²).
3. This application shall provide a minimum dry thickness of 37 – 56 mils (0.9 – 1.4 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-38 CHIL-LOW™ 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: 60,000 – 90,000 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).

6. INSPECTION

Where available, it is suggested to use a National Insulation Association (NIA) certified (or other similarly certified) mechanical insulation inspector throughout the project to inspect and verify the materials and total insulation system have been installed correctly in accordance with the specifications.

CUSTOMER SERVICE: (800) 832-9002

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