

WATER BASED VINYL-ACRYLIC MASTIC COATING FOR THERMAL INSULATIONS

DESCRIPTION

AK-CRYL™ CP-9 is a polymeric, water based weather barrier, breather type mastic. CP-9 dries to a tough flexible film that protects thermal insulation from weather by preventing water, rain, snow, sleet, spillage, wash water, etc., from entering into the system. In addition, CP-9 provides protection from mechanical damage created by external forces such as impact abrasion as well as the internal forces of thermal expansion, contraction, or vibration when applied with a reinforcing membrane. Using CP-9 can also protect the insulation from chemical attack of acids, alkalis and solvents. CP-9 is fire resistant and U.V. stable.

USES

AK-CRYL CP-9 Weather Barrier Coating provides weatherproofing and mechanical protection of thermal insulation both outdoors and indoors, in hot, cold and dual-temperature service. Because it is a 'breather' coating (vapors under pressure will pass through it), it should only be used over insulations in low temperature, or dual-temperature service when the insulations themselves are vapor barriers, or where a complete vapor barrier system is applied to the insulated surface either before or after the coating is applied. Industry experience has demonstrated that all weather barrier coatings may blister when applied over polystyrene board. This effect may be limited by the use of white colored coatings.

APPLICATION

AK-CRYL CP-9 Weather Barrier Coating is easy to apply by Trowel, Glove, Brush or Heavy-Duty Airless Spray. Its thixotropic consistency yields a smooth, attractive finish even over rough substrates; it readily fills gaps and imperfections, and is normally applied with a glass fabric or synthetic reinforcing mesh.

ADVANTAGES

- In the wet state, AK-CRYL CP-9 Weather Barrier Coating is non-flammable for worker safety.
- Being water based, it contains no harmful solvents that will attack insulations or facings.

CERTIFIED

- Meets NFPA Standard 90-A and 90-B 25/50 requirements.
- This product has been testing according to ASTM E-84 (Surface Burning Characteristics of Building Materials).
- Meets requirements for LEED IEQ 4.2 Low-Emitting Materials, Paints and Coatings. VOC: 45 g/l, less water and exempt solvents

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COLORS

White
Other colors available on special order

WET WEIGHT

11.3 lbs./U.S. gal. (1.35 kg/liter)

AVERAGE NON-VOLATILE

51% by volume (64% by weight)

SERVICE TEMPERATURE RANGE

(Temperature to which dry coating is subjected.)
-40°F to 180°F
(-40°C to 83°C)

APPLICATION TEMPERATURE RANGE

40°F to 100°F
(4°C to 38°C)

DRYING TIME

Touch - 2-4 hours
Through - 24-36 hours
(Drying time will vary depending upon film thickness, temperature and humidity.)

COVERAGE

4 to 6 U.S. gal./100 sq. ft. (1.6 to 2.4 l/sq.m)
(Varies with substrate and membrane.)

CLEAN-UP

Warm, soapy water (wet), xylol (dry)

WATER VAPOR PERMEANCE ASTM E-96

Greater than 1.0 perms (Procedure B) at 1/16" film thickness.



GENERAL PURPOSE COATING SURFACE BURNING CHARACTERISTICS

Applied to 1/4" Inorganic Reinforced Cement Board

Flame Spread:	10
Smoke Developed:	5-40
Rate per Coat (Sq.ft/gallon):	16.7
Number of Coats	1
Flash point of liquid coating (closed cup):	No flash to boiling

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CP-9 contains no asbestos, lead, mercury, or mercury compounds.

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MASTIC FINISH over insulation shall be AK-CRYL CP-9 Weather Barrier Coating. It shall be applied in two coats. For interior applications a tack coat is to be applied at a rate of two gallons per 100 sq. ft. (.8 l/sq. m.). While the tack coat is still wet, a layer of CHIL-GLAS #10 open weave glass fiber reinforcing mesh shall be embedded with all fabric seams overlapped a minimum of 2" (5.08cm). A finish coat at a coverage of two gallons per 100 sq. ft. (0.8 l/sq. m) shall be applied, fully covering the glass fiber reinforcing mesh, so that the minimum dry film thickness is 1/32" (0.032") (0.8 mm). For exterior applications increase finish coat to four gallons per 100 sq ft (1.6 l/sq m) for a dry film thickness of 0.048" (1.2 mm). There shall be no voids or holidays and the mastic shall be trowelled, sprayed or wet-brushed to a smooth even finish.

All adjoining insulated or uninsulated surfaces must be completely waterproofed and flashed. To effectively seal those locations where the AK-CRYL CP-9 coating meets adjoining insulated or uninsulated surfaces, or dissimilar weather proofing materials, CHIL-JOINT® CP-70 sealant shall be applied as the sealing/flashing material. CHIL-JOINT CP-70 sealant shall be trowelled at 1/8" thickness a minimum of 1" in both directions back onto and over the complete joint interface of the AK-CRYL CP-9 coating and the adjoining surface. CHIL-GLAS #5 glass fiber reinforcing mesh is recommended to provide thickness control and strength at the joint interface.

NOTES TO SPECIFYING ENGINEER

1. Open weave synthetic fabric may be substituted for open weave glass cloth without affecting the application. For large areas or areas subject to severe mechanical abuse, use CHIL-GLAS #5 glass fiber reinforcing mesh. Do not use with canvas or other closed weave fabrics.
2. If Chicken Wire, Hardware Cloth, or other metal reinforcements are to be used in lieu of glass fiber reinforcing mesh, please contact your representative for suggested procedures.
3. The above specification is for weather proofing and protection of insulation in HOT SERVICE: or for COLD or DUAL TEMPERATURE SERVICE where the insulation and/or the insulation system forms an adequate vapor barrier prior to the application of the AK-CRYL CP-9 coating.

Application Guide and Suggested Procedures

1. USE OF MATERIAL

AK-CRYL CP-9 Weather Barrier Coating appears much heavier than it actually is. DO NOT THIN THIS PRODUCT – IT IS THIXOTROPIC. Keep from freezing. It is best to keep it stored over long periods of time in a heated area. For spray application AK-CRYL CP-9 coating must be kept at minimum 50°F (10°C) just prior to spraying to achieve optimum results.

2. CONDITION OF INSULATION TO BE COATED

AK-CRYL CP-9 is a "breathing coating," which means that it will allow reasonable amounts of water (in the form of vapor - a gas) to pass through it in a reasonable period of time. However, excessively wet insulation on equipment operating at elevated temperatures will cause excessive water vapor pressure, and therefore blistering of the finish. Make certain the insulation is dry prior to the application of any coating. **To obtain proper bonding, dusty surfaces shall first be primed with Chil-Seal CP-50A MV1 diluted 50% with water.**

When applying AK-CRYL CP-9 coating over hygroscopic alkaline cements, first prime the surface of the cement with Chil-Seal CP-50A MV1 diluted 50% with water and allow to dry completely before applying the finish coat.

The presence of moisture in systems operating in Cold Service can completely destroy the effectiveness of not only the finish, but the entire insulation system. IT MUST BE DRY.

All exterior horizontal surfaces must be sloped at least 1/2 inch per foot to prevent ponding water.

3. HAND APPLICATION

Large flat areas are best covered by application with trowel or stiff brush. Smaller, irregular surfaces such as fittings are more readily covered by brushing or 'palming'. A smooth finish may be obtained by 'wet-brushing'.

4. SPRAY APPLICATION

AK-CRYL CP-9 Weather Barrier Coating is readily applied with Mastic Pumps and Air-Atomized or Airless Spraying equipment. The airless spray technique is generally considered more satisfactory - it is faster, neater, and gives a better, more uniform finish. For best results, we suggest at a minimum the following airless spray equipment (see spray equipment dealer for available packages):

PUMP	Graco Checkmate pump, 40:1 on 100cc lower, NXT2200 motor mounted on ram plate, Graco S20C – 5 gallon cart mounted ram
COMPRESSOR	Capable of 75 CFM and maintaining 100 PSIG.
FLUID HOSE	High pressure capable of 4,000 PSI 1/2" inch up to 50 feet. 3/4 inch over 50 feet. Use 8' x 1/2" I.D. hose for coupling to the gun. A higher ratio pump set-up will allow for longer hose runs up to 150'.
GUN	Graco Mastic or textured coating spray guns with Reverse-A-Clean tips.
TIP SIZES	635 to 655.

Most manufacturers of mastic spray equipment maintain nearby service facilities to aid in the solution of any technical problems that arise with their equipment.

5. DRYING AND RECOATING

A finish coat of AK-CRYL CP-9 Weather Barrier Coating should be applied immediately after the tack coat and membrane for maximum bond.

CUSTOMER SERVICE: 800-832-9002

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