

WATER BASED VINYL-ACRYLIC MASTIC COATING FOR THERMAL INSULATIONS

DESCRIPTION

AK-CRYL® CP-9 is an economical, polymeric, water based weather barrier, breather type mastic. CP-9 dries to a tough flexible film that protects thermal insulation from the ravages of 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. 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 mechanical protection and weatherproofing 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.

ADVANTAGES

In the wet state, AK-CRYL CP-9 weather barrier coating is non-flammable for worker safety. It is economical. Being water based, it contains no harmful solvents that will attack insulations or facings. Its special formulation allows for application during most times of the year for increased productivity. It is surprisingly easy to apply.

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 reinforcing mesh.

CERTIFIED

That this product meets the requirements of NFPA Standard 90-A and 90-B. This product has been testing according to ASTM E-84 (Surface Burning Characteristics of Building Materials).

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COLORS

White
Other colors available on special order

WET WEIGHT

11.4 lbs./U.S. gal. (1.37 kg/liter)

AVERAGE NON-VOLATILE

60% to 64% 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

6 U.S. gal./100 sq. ft. (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.



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**General Purpose Coating
Surface Burning Characteristics
R3593**

Surface:	Applied to inorganic reinforced cement board
Flame Spread:	10
Smoke Developed:	10-40
Number of Coats:	1
Coverage:	16.6 sq. ft/gal.
Flash Point of Liquid Coating, Closed Cup:	No flash to boiling.

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. A tack coat is to be applied at a rate of two gallons per 100 sq. ft. (.81 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" (5.08 cm). A finish coat at a coverage of four gallons per 100 sq. ft. (1.6 l/sq. m) shall be applied, fully covering the glass fiber reinforcing mesh, so that the minimum dry film thickness is 1/16" (.063") (.16 cm). 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, 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 looks much heavier than it is - it is thixotropic - use it the way it comes WITHOUT THINNING! 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. THE CONDITION OF THE INSULATION TO BE COATED

The best coating in the world can be no better than the surface it is going over. KNOW THE TYPE AND CONDITION OF THE SUBSTRATE! 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-Lag CP-52 diluted 50% with water.

When applying AK-CRYL CP-9 coating over hygroscopic alkaline cements, first primer the surface of the cement with Chil-Lag CP-52 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. They 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. A suggested size pump to use is the 40:1 using a tip with cross section radius between .043" and .055" depending upon fan size and output desired (a 651 tip would be the most common). Hose diameters should be 1" I.D. for the first 150 ft. (45 m) from the pump reduced to 3/4" I.D. diameter beyond 150': use 8' (2.4 m) of 1/2" I.D. hose for coupling to the gun. Reverse-A-Clean tip is recommended for the spray gun.

A pump in the range of 9:1 is used in the conventional method. The gun should have a 1/4" nozzle and air cap.

To operate this equipment there should be air available at a minimum of 75 cfm and 100 psig. Water should be pumped through the system before spraying the AK-CRYL CP-9 coating. Ram plate or follower plate should be used in spraying AK-CRYL CP-9 coating.

Most manufacturers of mastic spray equipment maintain nearby service facilities to aid in the solution of any technical problems which 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. The volatile portion of AK-CRYL CP-9 coating is water and the rate at which the film will dry varies with any of a number of factors: the thickness at which the AK-CRYL CP-9 coating is applied, heat, humidity, and the absorption by the substrate.

CUSTOMER SERVICE—800-231-9541 OR 800-338-2975

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

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