Childers®

Mastics, Coatings, Adhesives, Sealants

CP-9 AK-CRYL™ Weather Barrier Coating

Product Data Sheet

WATER-BASED, MASTIC COATING FOR THERMAL INSULATION

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 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 retarders, or where a complete vapor retarder 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 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, CP-9 is non-flammable for worker safety.
- Being water-based, it contains no harmful solvents that will attack insulations or facings.

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: 0 g/l, less water by ASTM D6886
- Collaborative for High Performance Schools EQ 7.1
- Meets NFPA Standard 90-A and 90-B 25/50 requirements.

COLORS

CP-9: White

AVERAGE WET WEIGHT (ASTM D1475)

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

AVERAGE NON-VOLATILE (ASTM D2369)

53% by volume (65% by weight)

SERVICE TEMPERATURE RANGE

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

APPLICATION & STORAGE TEMPERATURE RANGE

40°F to 100°F (4°C to 38°C)

DRYING TIME

Temperature, humidity and film thickness will affect drying time.
To Touch: 2 – 4 Hours
Through: 24 – 36 Hours

COVERAGE

Varies with substrate and membrane.
4 to 6 U.S. gal./100 sq. ft. (1.6 to 2.4 l/m^2)

CLEAN UP

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

WET FLAMMABILITY

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

SURFACE BURNING CHARACTERISTICS (ASTM E84)

CLASSIFIED UL

GENERAL PURPOSE COATING
SURFACE BURNING CHARACTERISTICS
282U

Applied to ¼" Inorganic Reinforced Cement Board

Flame Spread:	10
Smoke Developed:	45
Rate per Coat (sq. ft./gal.):	25
Number of Coats:	1
Flash Point of Liquid Coating (Closed Cup):	No flash to boiling

R3593

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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 2 gal. per 100 sq. ft. (0.8 l/m^2). 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 2 gal. per 100 sq. ft. (0.8 l/m^2) 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 4 gal. per 100 sq. ft. (1.6 l/m^2) 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® #10 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. 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. Best 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 "breather 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-52 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-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. IT MUST BE DRY. All exterior horizontal surfaces must be sloped at least 1/2 inch per foot (4 cm/m) 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 airless spraying equipment. 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 ½" 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 should be applied immediately after the tack coat and membrane for maximum bond.

CUSTOMER SERVICE: 833-849-3700

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

Consult Safety Data Sheet and container label for further information.