

DURABLE WATER BASED VINYL-ACRYLIC MASTIC COATING FOR THERMAL INSULATIONS

DESCRIPTION

VI-CRYL® CP-10/11 weather barrier coating is a tough, durable, and fire-resistive water based mastic for most types of thermal insulation and finishing and insulating cements. It is very thixotropic - it looks heavy but spreads easily. It is available in a variety of standard and special fade-resistant colors. It is outdoor rated and U.V. resistant.

USES

VI-CRYL CP-10/11 weather barrier coating is unsurpassed for the mechanical protection and weatherproofing of thermal insulations both outdoors and indoors, in hot, cold, and dual-temperature service. However, since it is a 'breathing' 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. VI-CRYL CP-10/11 has also found use throughout the thermal insulation industry as a coating used over closed cell polyethylene and polyurethane foam insulations. 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. VI-CRYL CP-10/11 weather barrier coating in its Metallic Gray color is the ideal companion product to Aluminum and Stainless Steel Jacketing.

APPLICATION

VI-CRYL CP-10/11 weather barrier coating is easy to apply by Trowel, Brush or Heavy-Duty Airless Spray. Its thixotropic consistency yields a smooth, attractive finish even over rough substrates; it readily fills gaps and imperfections. VI-CRYL CP-10/11 coating should be applied with glass fiber reinforcing mesh.

ADVANTAGES

- In the wet state, VI-CRYL CP-10/11 weather barrier coatings is non-flammable. It contains no solvents that will attack insulations or facings.
- The cured film is tough, flexible, and resists most common chemicals and many solvents.
- It is fire-resistive: its flame spread index being within the range of acceptance of government and industrial agencies.

CERTIFIED

- Meets NFPA Standard 90-A and 90-B 25/50 requirements.
- Qualifies under Coast Guard Specification 164.012.
- This product has been tested according to ASTM E-84 (Surface Burning Characteristics of Building Materials).
- Meets requirements for LEED IEQ 4.1 Low-Emitting Materials, Paints and Coatings. VOC: 45 g/l, less water and exempt solvents.

COLORS

	TROWEL	SPRAY/BRUSH
White	10	11
Metallic Gray	10-1	11-1
Black	10-2	11-2

(Other colors are 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 perm for 1/16 inch (0.16cm) dry film. (Procedure B)



GENERAL PURPOSE COATING SURFACE BURNING CHARACTERISTICS

Applied to 1/4" Inorganic Reinforced Cement Board	
Flame Spread:	10
Smoke Developed:	40
Rate per Coat (Sq.ft/gallon):	16.7
Number of Coats	1
Flash point of liquid coating (closed cup): No flash to boiling	
	282U



MASTIC FINISH over insulation shall be VI-CRYL CP-10/11 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" (5.08cm). 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 un-insulated surfaces must be completely waterproofed and flashed. To effectively seal those locations where the VI-CRYL CP-10/11 coating meets adjoining insulated or uninsulated surfaces, or dissimilar weather proofing materials, CP-76 sealant shall be applied as the sealing/flashing material. CP-76 shall be trowelled at 1/8" thickness a minimum of 1" in both directions back onto and over the complete joint interface of the VI-CRYL CP-10/11 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. Synthetic fabrics may be substituted for #10 open weave glass cloth without affecting the application.
2. If Chicken Wire, Hardware Cloth, or other metal reinforcements are to be used in lieu of fabric membranes, 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 VI-CRYL CP-10/11 coating.



Application Guide and Suggested Procedures

1. USE OF MATERIAL

VI-CRYL CP-10/11 weather barrier coating looks much heavier than it is. It is thixotropic. DO NOT THIN. Protect from freezing until dry. Keep stored over long periods of time in a heated area. For spray application VI-CRYL CP-10/11 coating must be kept at a minimum of 50°F (10°C) just prior to spraying to achieve optimum results.

2. THE CONDITION OF THE INSULATION TO BE COATED

VI-CRYL CP-10/11 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 VI-CRYL CP-10/11 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. They **MUST BE DRY.**

All exterior horizontal surfaces must be sloped at least 1/2 inch per foot (4cm/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. Airless spray may also be used.

4. SPRAY APPLICATION

VI-CRYL CP-11 coating may be sprayed with many types of equipment, including airless spray. It may also be sprayed with conventional Mastic spray equipment using an external atomizing spray gun. Many manufacturers of spray equipment can make detailed recommendations for any number of types of equipment. The spray equipment and techniques would be similar to those used for applying block fillers. For best results, we suggest the following airless spray equipment.

PUMP	Graco Bulldog Hydramastic, 40:1 ratio (model 204-925) air regulator with inductor plate (207-039).
COMPRESSOR	Capable of 75 CFM and maintaining 100 PSIG.
FLUID HOSE	High pressure capable of 4,000 PSI One inch up to 150 feet. 3/4 inch after the first 150 feet. Use 8' (2.4 m) 1/2" I.D. hose for coupling to the gun.
GUN	Graco Hydra-Mastic #207-300 with Reverse-A-Clean 205-614.
TIP SIZES	635 to 655.

5. DRYING AND RECOATING

A finish coat of VI-CRYL CP-10/11 weather barrier coating should be applied immediately after the tack coat and membrane application for maximum bond.

CUSTOMER SERVICE: 800-231-9541

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