Diamond Vogel

Heavy Duty Protective Coatings

MF-Series

V-Cote 111

Waterborne Polyamide Epoxy

Technical Data

Product Description

V-Cote 111 Waterborne Polyamide Epoxy is a Low Odor, Low VOC, two component product. It is formulated to provide resistance against a wide range of solvents and chemical splash and spill conditions on a variety of substrates. V-Cote 111 can be applied to tightly adhered, existing coatings. Use for heavy duty service on properly prepared masonry, drywall and structural steel surfaces and equipment.

Intended Uses

Designed for heavy duty commercial and industrial maintenance on properly prepared concrete block, poured concrete, structural steel, drywall, machinery and equipment, pipes , shower and locker rooms, food preparation areas, operating room and laboratories. These are typical uses and not intended to limit the use of this product. NOT INTENDED FOR IMMERSION SERVICE.

Physical Properties

Colors	MF-1210 White
Bases (Part A)	MF-1211 White Base, Tintable in "ACS" system up to 4 oz.
Cures (Part B)	MM-0210
Resin Type	Waterborne Polyamide Epoxy
Clean-up Solvents	Water
Mixing Ratio (by volume)	7 resin to 1 part cure
Thinning	DO NOT THIN
Finish/Sheen	60+ @ 60°
Solids By Weight	60%
Solids by Volume	43%
Theoretical Coverage**	690 ft²/gal @ 1 mil
Dry Film Thickness / Coat	2 – 3 mils (50 - 75 microns)
Wet Film to Achieve DFT	4.5 – 6.5 mils (112.5 - 162.5 microns)
Coverage at DFT**	230 – 345 ft²/gal
VOC's (White)	.31 lbs./gal. (37 grams/liter)
Induction Time	none
Pot Life	2.5 to 3 hours
Drying Time* [At 70°F (21°C)] [ASTM D 1640]	
Set to Touch	2 hours
Dry Through/Re-coat	Minimum Recoat 2 hours

* **Dry times vary with surface temperature, air movement, humidity and film thickness.**

** **Coverage rates are estimates based on the products volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity and texture.**

Recommended Primers, Fillers and Sealers

Ferrous Metal	Cote-All Universal Primer (AZ-Series)
	Mult-E-Poxy 180
	V-Tech 500 Hi-Build Epoxy Primer
	V-Cote 200 Acrylic Maintenance Primer (MC-Series)
Galvanized & Aluminum Metal	V-Cote 200 Acrylic Maintenance Primer (MC-Series)
Interior Wood	DU-1508 Latex Enamel Undercoat
	CU-1401 Alkyd Enamel Undercoat
Drywall	DU-1514 P.V.A. Primer/Sealer
Plaster	CU-1401 Alkyd Primer/Sealer
	DU-1502 Latex Primer/Sealer
Interior Concrete Block (wet environment)	BF-1501 Permafil Block Filler
	V-Coat 100 Acrylic Epoxy Block Filler (MC-Series)
Interior Concrete Block (dry environment)	V-Cote 111 (self-priming)
	BF-1515 Acrylic Block Filler
Poured Concrete	V-Cote 111 (self-priming)
	BU-1501 Sure Grip Primer

Surface Preparation

All surfaces must be clean, sound, dry and free of all dirt, dust, wax, oil, grease, chalk and any other contamination that would interfere with new coating adhesion. Bare surfaces must be properly prepared and primed prior to application of this product. See "Recommended Primers, Fillers and Sealers" for appropriate primer to use depending on the substrate.

Masonry Surfaces:
Poured concrete
Concrete block

New concrete must cure for a *minimum* of 30 days at 72° F (22° C) prior to coating application. Level all surface projections and mortar spatters by stoning. Rake mortar joints clean and remove all soluble salts. V-Cote 111 is self-priming on masonry surfaces, however, see "Recommended Primers, Fillers and Sealers" for primer recommendations for interior and exterior masonry surfaces in dry and wet areas.

Ferrous Metal Surfaces:

Abrasive blast new steel to SSPC-SP-6. Use proper abrasive to achieve an average of 1.5 to 2 mil profile. Blasted surfaces should be primed before flash rusting occurs. If blasting is not practical, remove loose rust and mill scale with hand or power abrading tools as per SSPC-SP-2 and SSPC-SP 3.

New Galvanized & Aluminum Surfaces:

Remove surface contamination or passivators by scrubbing with a cleaning & etching solution or blast per SSPC-SP-7 brush-off blast.

Weathered Galvanized & Aluminum Surfaces:

Power or hand wash with detergent and rinse thoroughly. The surface must be dull and have a profile. Use a cleaning & etching solution if needed or blast per SSPC-SP-7 brush-off blast.

Wood Surfaces:

Sand smooth any exposed wood surfaces. Patch nail holes and any imperfections with wood filler or putty and sand smooth. Remove sanding dust.

Plaster Surfaces:

New plaster must cure for a *minimum* of 30 days at 72° F (22° C) prior to coating application. Sand, fill cracks with spackling compound, allow to dry and sand smooth. Remove dust.

Drywall Surfaces:

Fill nail holes and imperfections with spackling compound and allow to dry. Sand tape joints and spackled areas and remove dust.

Previously Painted Metal Surfaces:

Power or hand washing is recommended to remove contamination. If oil or grease is present, use of a cleaner/degreaser is required. All cleaning residue must be completely rinsed from the surface. Allow to dry. Remove all loose coatings, rust and corrosion by scraping, sanding or other abrading method as per SSPC-SP-2 and SSPC-SP-3, or abrasive blast as per SSPC-SP-6 commercial blast. Use sandpaper to dull slick, glossy and/or non-porous surfaces with sandpaper.

Mildew:

Remove by using a solution of one part household bleach and three parts water. Apply to mildewed area and scrub. Allow solution to remain on the surface for 3 to 5 minutes and then rinse completely and allow to dry before coating application.

Application

Part A (resin) and part B (cure) are packaged in pre-measured kits. The mixing ratio is 7 parts A to 1 part B. Stir both components prior to intermixing. Thoroughly mix Part B into Part A using a power drill and Jiffler mixer to disperse pigments. The material must be applied within the estimated pot life. For optimum application, air and surface temperature should be from 50° to 90°F (10° to 32°C) and at least 5° F (3° C) above the dew point. A minimum surface temperature of 50°F (10°C) for eight (8) hours after application is recommended to achieve proper film formation.

Brush or Roller:

Apply product in full even coats. Maintain a wet edge. To insure adequate film build, two coats are recommended when applying by brush or roller (See the drying times chart for recoat period). Allow the product to dry between coats. A good quality synthetic brush will make application easier. Select a roller cover suited for the texture of the surface to be coated.

Airless Spray:

Flush airless lines with water. Equipment must be clean prior to start. Apply a wet coat in even, parallel passes with 50% overlap to avoid bare areas and pinholes.

Tip Orifice	*Atomizing Pressure*	*Mat'l Hose ID*	*Manifold Filter*
0.017" to 0.019"	2500 - 3000 PSI	1/4" or 3/8"	60 mesh

Performance Criteria

V-Cote 111 will meet or exceed the following performance testing criteria.

Abrasion Resistance:

Method: ASTM D 4060, CS-17 Wheel 1000 Gram Load
System: V-Cote 111 one coat
Requirements: No more than 250 mg loss after 1000 cycles

Cyclic Weathering:

Method: ASTM G-85 Annex A5
Substrate: 6" x 12" hot rolled steel
Surface preparations: SSPC-SP-10 Blast with 1.5 mil profile
System: V-Cote 111 two coats

Performance Criteria (Cont.)

Cyclic Weathering: Requirements: 1500 hours, no blistering, face rust rated 10, 3 – 4 mm scribe creepage

Impact Resistance:
Method ASTM 2794
System: V-Cote 111 one coat
Result: Direct 25 in/lbs, Reverse 5 in/lbs

Heat Resistance:
Method: ASTM D 2485 High Temperature Service
System: V-Cote 111 one coat
Requirement: Passes @ 250° (121°C)

Pencil Hardness:
Method: ASTM D 3363
System: V-Cote 111 one coat
Requirements B – 2B

Corrosion Resistance:
Method: ASTM B 117-94 Salt Spray (Fog) Test
Substrate: 6" x 12" hot rolled steel
Surface Preparation: SSPC-SP-10 blast with 1.5 mil profile
System: V-Cote 111 two coats
Requirements: 850 hours, no face blistering, no face rust, 1 mm scribe creepage

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Chemical Resistance:

Chemical Resistance for Splash and Spillage

The information included in this chart reflects V-Cote 111's resistance to these chemical in environments where the coating may periodically come in contact with such materials. Cleaning and general maintenance will prolong the integrity of all coating systems. For more detailed information, contact your local Diamond Vogel sales representative.

Solvents:
Toluene – Excellent
Xylene – Excellent
Unleaded Gas – Excellent
Denatured Alcohol – Very Good
Mineral Spirits – Excellent
Nethanol – Very Good
Triethlamine – Excellent
MIBK – Excellent
Perchlorethylene - Excellent
Ethylene Glycol – Good

Oils:
Dirty Motor Oil – Excellent
Dirty Motor Oil – Excellent
Skydrol – Very Good

Salts and Bases:
Sodium Hydroxide – Very Good

Miscellaneous:
Water – Good
TSP 1% - Good
TSP 10% - Good
Windex w/AM.D – Good

Safety Precautions

Paint Products contain chemical ingredients, which are considered hazardous. Prior to use, read container label warnings and the current Material Safety Data Sheet for important health and safety information. Insure these instructions are practiced during product application and cure. **Keep out of the reach of children.**

Limited Warranty

The technical data and suggestions for use contained in this document are true and correct to the best of our knowledge at the date of issuance. The statements of this document do not constitute a warranty, expressed or implied, as to the performance of these products. Since Diamond Vogel Paints does not control the application of its products, or the condition of the surfaces to which they are applied, Diamond Vogel Paint's liability will under no circumstances exceed replacement

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