

Diamond Vogel Customer Service

Diamond Vogel's goal is to provide direct services to cooperative system local managers. Diamond Vogel owns and operates over eighty stores, multiple regional warehouses and maintains a direct sales force in twelve states. (Please refer to the location list located on the back cover of this booklet.)

The cooperative system paint program is coordinated by Diamond Vogel's Trade Sales Managers.

The Trade Sales Managers:

- **Perform site inspections** and produce custom specifications.
- **Recommend painting contractors** and assists in bidding process as requested.
- **Coordinate mobilization and pricing programs** with local DV sales force.
- **Investigate problems** and help develop solutions.

Brad Perau
Trade Sales Manager
NACE Certificated
Coatings Inspector
Diamond Vogel Paint
711 S. 3rd Ave.
Marshalltown, IA 50158
Phone: 641-753-6617
800-387-8426
Fax: 641-753-5252

Duane Beekhuizen
Trade Sales Manager
Diamond Vogel Paint
1020 Albany Place SE
Orange City, IA 51041
Phone: 712-737-4993
800-728-6435
Fax: 712-737-4997

Pat Barry
Trade Sales Manager
NACE Certificated
Coatings Inspector
Diamond Vogel Paint
4500 E. 48th Ave.
Denver, CO 80216
Phone: 303-333-3117
800-332-6126
Fax: 303-333-3499

Pat Murphy
Trade Sales Manager
Diamond Vogel Paint
7870 L Street
Omaha, NE 68127
Phone: 402-592-2400
800-627-2468
Fax: 402-592-8326

Regional Customer Service Manager

- **Coordinate inventory and delivery:**

Everett Moore
711 S. 3rd Ave.
Marshalltown, IA 50158
Phone: 641-753-6617
800-387-8426
Fax: 641-753-5252

Kurt Robinson
2100 N. 2nd St.
Minneapolis, MN 55411
Phone: 612-521-4707
Fax: 612-521-8386

Carl Martin
7870 L Street
Omaha, NE 68127
Phone: 402-592-2400
800-627-2468
Fax: 402-592-8326

Tom Gullickson
2501 Advance Rd.
Madison, WI 53718
Phone: 608-222-7722
Fax: 608-222-7530

Sherry Spears
1506 Bluff Road
Burlington, IA 52601
Phone: 319-754-8408
Fax: 319-754-8400

Arlin Brenneman
1020 Albany Place SE
Orange City, IA 51041
Phone: 712-737-4993
800-728-6435
Fax: 712-737-4997

Russ Sammons
4500 E. 48th Ave.
Denver, CO 80216
Phone: 303-333-3117
800-332-6126
Fax: 303-333-3499

Dan Sweeney
1201 Main
Fargo, ND 58103
Phone: 701-293-9105
Fax: 701-293-1392

Tim Brennan
1021 SW Blue Parkway
Lee's Summit, MO 64063
Phone: 816-246-0555
Fax: 816-246-1117

Visit us at our Diamond Vogel website, www.diamondvogel.com

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1.00 SCOPE OF WORK

- 1.01 This specification outlines procedures for surface preparation and coating application required in the maintenance of the cooperative system facilities and equipment. This specification is based from survey findings in various usage areas in heavy-duty industrial maintenance environments and addresses specific types of coating projects, surface preparation procedures, and coating recommendations.
- 1.02 Diamond Vogel has the resources to facilitate major projects for the cooperative system outside of their 12 state region over the entire nation through Paint America, the National Coatings Alliance. Paint America, a joint venture of four leading manufactures, provides high quality coatings and services to national and multi-regional customers. Paint America consists of four paint companies: Diamond Vogel Paints in the midwest, Kelly Moore Paints in the western United States, Dunn Edwards in southwestern United States, and MAB Paints in the eastern United States.

For support on coating projects outside of Diamond Vogel's 12 state region, contact Everett Moore or Brad Perau at 1-800-387-8426, Marshalltown Divisional Office, Marshalltown, Iowa.

2.00 GENERAL

- 2.01 This specification has been written for the use of the cooperative system. It is intended to be used as a document to help solicit bids for the required work from independent contractors and/or as a guideline in supervising the completion of the work by in-house crews. This document should not be construed as an extension of a warranty or of any guarantee for the performance of the systems specified.
- 2.02 All procedures recommended by the product manufacturer must be followed. Manufacturer's product information sheets are attached to this proposal for reference.
- 2.03 All safety rules and regulations of the cooperative system, applicable federal, state and local laws (including OSHA regulations and insurance and underwriter's requirements, where applicable) should be strictly observed by personnel engaged in the storing, handling, use and application of paints, caulks, thinners and solvents specified in this proposal.
- 2.04 **Removal of lead containing paints and the generation of hazardous waste:**
It shall be the responsibility of the property owner to determine if surface preparation procedures will generate hazardous waste through the removal of paints containing leaded pigments and/or other regulated heavy metals. If surface preparation procedures involve the removal of paint films containing leaded pigments, the location manager and contractor must act jointly to insure that local, state, and federal regulations governing the generation, storage, transporting and disposal of hazardous materials are complied with. Hazardous discharge should not be allowed to drift onto or be carried onto adjacent property or go down sanitary or storm sewer drains. Workers must be adequately protected. It has been established that inhalation or ingestion of lead is injurious to health.
- 2.05 Coating performance is, in general, directly proportional to the degree and quality of surface preparation. Coating selection should be based on the method of surface preparation, which can be effectively accomplished.

3.00 MATERIALS AND EQUIPMENT

3.01 Diamond Vogel Paint Company, 1110 Albany Place SE. Orange City, IA 51041

- A. AZ Series Cote-All Enamel
- B. AZ-Series Cote-All Universal Primer
- C. BA-Series Permacryl Exterior Flat Latex
- D. BF-1501 Permafil High Performance Acrylic Block Filler
- E. BF-1515 Dia-Pro Block Filler
- F. BN-Series Permacryl Exterior Semi-Gloss Latex
- G. BU-Series Sure-Grip Acrylic Primer
- H. CS-Series Pro Plus Semi-Gloss Alkyd
- I. DS-Series Permacryl Interior Semi-Gloss Latex Enamel
- J. DU-1507 P.V.A. Interior Latex Primer-Sealer
- K. MC-0521 Permaflex Surface Conditioner
- L. MC-Series Permaflex Elastomeric
- M. Miracle Glaze Urethane Sealer
- N. Mult-E-Poxy 180 Epoxy Mastic (2 component)
- O. Mult-E-Poxy 230AL Epoxy Mastic Aluminum (2component)
- P. Pinnacle 330HS High Solids Acrylic Polyurethane
- Q. Pinnacle 460 Fleet Finish Polyurethane Gloss
- R. Stratum Primer PG-Series Urethane Primer System (2 component)
- S. V-Cote 200 Acrylic Maintenance Primer/Finish
- T. V-Cote 222 Acrylic Maintenance Finish
- U. V-Tech 500 Hi-Build Epoxy Primer
- V. V-Tech 505 Clear Epoxy Concrete Primer/Sealer
- W. V-Tech 700 Zinc Dust Metal Primer

3.02 Ameron Protective Coatings Division, 201 North Berry Street, Brea, CA 92622.

- A. Amercoat 90HS High Performance Epoxy
- B. Amerlock 400AL High Solids Epoxy
- C. Nu-Klad 114A Epoxy Filler Compound
- D. Nu-Klad 965 Modified Acrylic Cement
- E. PSX 700 Engineered Siloxane Coating

3.03 3M, Scotch-Brite Surface Conditioning Products, 3130 Lexington Ave. So. Egan, MN 55121.

- A. #7440 Scotch-Brite Heavy Duty Hand Pad
- B. 4.5" Coarse Surface Conditioning Disc

3.04 VIP/Lighthouse Products, P.O. Box 1253, New Smyrna Beach, FL 32170

- A. 5100 VIP Buttering Grade Sealant
- B. 5300 VIP Sealant

3.05 Mameco International, 4475 E. 175th St., Cleveland, OH 44128

- A. Vulkem #45 Pourable Polyurethane Sealant
- B. Vulkem #116 One-part Urethane

3.06 Great Lakes Laboratories, 12780 Wayne Road, Livonia, MI 48150

- A. 705 Extra Muscle Prepaint Cleaner
- B. 899 Clean'n Etch

3.07 Rust-Oleum Corporation, 11 Hawthorn Parkway, Vernon Hills, IL 60061

- A. 3990 High Build Acrylic Elastomeric Roof Coating

4.00 SURFACE PREPARATION

Surface preparation standards establish MINIMUM STANDARDS that should always exist before a coating or sealant is applied. Coating performance is proportional to the degree and quality of surface preparation. The type of Surface Preparation performed is dependent upon the surface conditions and the type of substrate.

I. **SURFACE PREPARATION STANDARD NUMBER ONE: - The surface must be clean**

All areas to be coated must be dry, clean, and free of all dirt, oil, chalky residue, and any other contaminants that are not tightly adhering to the surfaces that are to be painted.

II. **SURFACE PREPARATION STANDARD NUMBER TWO: - The surface must have a profile**

All glossy and/or slick surfaces must be dulled prior to painting to insure bonding of the new coating. Such surfaces can be dulled either by chemical washing or by mechanical abrasion. Remove all residual powder and dust.

III. **SURFACE PREPARATION STANDARD NUMBER THREE: - The surface must be structurally sound**

Adhesion of any coating system is only as good as the structure beneath it. Surface conditions to avoid are dry rot, rust scale (loose, flaking rust), and crumbling surfaces. If any of these conditions exist, the surface must be made sound by repairing, removal or replacement. To test the condition of a surface, firmly press a strip of duct tape onto the surface and pull it quickly off. If portions of the surface come off with the tape, the surface is not in acceptable condition for painting and must be corrected.

4.01 Test Adhesion of existing coatings

If painting over existing coatings be sure that the old paint is adhering tightly. Test the adhesion of existing coatings after required chemical and mechanical cleaning of the surface by cutting a 2" x 2" X-cut through the existing coating. Then apply 6" strips of duct tape over the "X's" firmly press down and then quickly pull off the tape. If portions of the prior coating come off with the tape, additional surface preparation must be done before painting.

4.02 Hand Washing

Previously painted surfaces should be washed using Extra Muscle Prepaint Cleaner and an abrasive scrubbing sponge. Use a solution of 10 oz. Extra Muscle Prepaint Cleaner per gallon of water. Apply the solution to the surface and scrub with the abrasive side of the scrubbing sponge. Thoroughly rinse the area with clean water and allow to dry.

4.03 Power Cleaning With High Pressure Water

Power wash with a minimum 800-psi and a minimum fluid flow of 2 gpm. To clean with the addition of a chemical cleaner, the power washer should be equipped with chemical injection capability. Extra Muscle Prepaint Cleaner may be applied through the system at the rate of 10 oz. per gallon. Higher concentrations of cleaner may be necessary to increase cleaning speed. The solution should be allowed to soak on the surface 3 to 5 minutes before it is thoroughly rinsed off. All chemical residue must be rinsed from the surface.

4.04 Water Blasting

Water blast with a minimum 2400-psi and a minimum fluid flow of 3 gpm and an oscillating, rotary tip. The tip of the water washer/blaster should be held no more than 12 inches from the surface and the spray should hit the surface at a 45° angle or less. When water blasting it is important to try to undercut, with high-pressure water, all previous paint coatings and sealants so that any partially loose coating would be removed. Rough edges of adherent coating should be sanded smooth with 220 grit wet or dry sandpaper or ground smooth using a 3M Scotch-Brite Surface Conditioning Disc.

4.05 Brush Off Blast Cleaning (SSPC-SP-7-85)

A surface prepared according to SSPC-SP-7-85 requires that the surface, when viewed without magnification, be free of all visible oil, grease, dirt, dust, loose rust, loose mill scale, and loose coatings. It is not intended to remove tightly bonded mill scale, sound rust or adherent coatings. Material is considered adherent if it cannot be lifted with a dull putty knife. Prior to blast cleaning, visible deposits of oil and/or grease should be removed by power washing or other agreed upon methods. A Brush-off Blast may also be used to abrade a previous coating, providing a surface profile for new coating application.

4.06 Commercial Blast Cleaning (SSPC-SP-6-85)

This is the most commonly specified grade of abrasive blasting and is suitable for most industrial coatings when not intended for immersion service. Prior to blast cleaning, visible deposits of oil and/or grease should be removed by power washing or other agreed upon methods. In addition, sharp fins, edges and weld spatter should be removed. A surface prepared according to SSPC-SP-6-85 requires that the surface, when viewed without magnification, be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter. Light staining due to rust, mill scale, and previous coatings may remain on no more than 33% of each square inch of surface area. The profile produced by blasting should be controlled by the selection of blast media and should not exceed the filling capacity of the primer to be applied.

4.07 Near-White Blast Cleaning (SSPC-SP-10-85)

Prior to blast cleaning, visible deposits of oil and/or grease should be removed by power washing or other agreed upon methods. In addition, sharp fins, edges and weld spatter should be removed. A surface prepared according to SSPC-SP-10-85 requires that the surface, when viewed without magnification, be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products and other foreign matter. Light staining due to rust, mill scale, and previous coatings may remain on no more than 5% of each square inch of surface area. The profile produced by blasting should be controlled by the selection of blast media and should not exceed the filling capacity of the primer to be applied.

4.08 Power Tool Cleaning to Bare Metal (SSPC-SP-11-87T)

In areas where an abrasive blast is desirable but impractical, Power Tool Cleaning to bare metal may be used to prepare the surface. Prior to blast cleaning, visible deposits of oil and/or grease should be removed by power washing or other agreed upon methods. In addition, sharp fins, edges and weld spatter should be removed. The prepared surface will be free of all visible oil, grease, dirt, rust, paint, and other foreign matter. Residues of rust and paint may be left in the pits of the surface. This method may be used to produce a surface profile in small areas.

Surface cleaning power tools are generally impact or profile producing power tools, to which any of the following type of media can be attached: non-woven abrasive wheels and discs, coated abrasive discs, flap wheels, needle guns or other devices. 3M Scotch-Brite Surface Conditioning Products line can provide this type of abrasive media to be mounted onto power tools.

4.09 Hand Tool Cleaning (SSPC-SP-2-82)

Prior to the use of hand tools, remove visible oil and/or grease by power or hand washing. A surface prepared with hand tools requires that all loose mill scale, loose rust, loose paint and other loose foreign material be removed. It is not intended to remove **adherent** mill scale, rust and paint. Material is considered to be adherent if they cannot be removed by lifting with a dull putty knife. Types of tools used include non-woven abrasive hand pads, wire brushes, and scrapers. 3M Scotch-Brite Heavy Duty Hand Pads can be used to accomplish this type of preparation.

4.10 Power Tool Cleaning (SSPC-SP-3-82)

Prior to the use of power tools, remove visible oil and/or grease by power or hand washing. A surface prepared with power tools requires that all loose mill scale, loose rust, loose paint and other loose foreign material be removed. It is not intended to remove **adherent** mill scale, rust and paint or to produce a surface profile. Material is considered to be adherent if they cannot be removed by lifting with a dull putty knife. Types of power tools used are generally impact or rotary power tools, to which any of the following type of media can be attached: non-woven abrasive wheels and discs, coated abrasive discs, flap wheels, needle guns or other devices. 3M Scotch-Brite Surface Conditioning Products line can provide this type of abrasive media to be mounted onto power tools.

CONCRETE PREPARATION TECHNIQUES

4.11 Preparing Previously Painted Masonry or Concrete Block

Scrape all loose, peeling and cracked paint off surfaces. Remove any paint that is not tightly adhering. Hand sand all edges of remaining paint film smooth or buff with right angle grinder and Scotch-Brite Coarse Surface Conditioning Disc. Clean by power or hand washing. Patch all irregularities with Nu-Klad 965 Acrylic Modified Cement and trowel smooth. (965 dries hard and is not sandable). Spot prime all patches and exposed block with BF-1515 Acrylic Block Filler on interior applications and BF-1501 Permafil High Performance Acrylic Block Filler for exterior applications. Allow primer to dry and then topcoat with required coating.

4.12 Preparing a Concrete Slab

The most difficult aspect of satisfactorily coating a concrete floor is preparing the floor to insure that the coating system will adhere. The following tests should be performed to determine the extent of surface preparation required to insure a successful coating application.

- 1) Test for Curing Compound:¹ Most concrete had a chemical curing agent applied at the time the concrete was poured. Such chemical curing agents frequently prevent adhesion of coatings. Test for curing compound by applying a muriatic acid solution to bare concrete. If the solution does not react, (bubble vigorously) contact with the concrete, the presence of a curing compound is indicated. Check various areas of the floor. Curing compounds must be removed by mechanical abrasion, such as shot blasting.
- 2) Test for Grease: The presence of oil or grease will interfere with coating adhesion. Dark and discolored areas often indicate that grease and/or oil has contaminated the floor. Test for contamination by pouring a small amount of water on the floor. If it beads up, oil and/or grease is present. Another test, which can indicate the presence of oil or grease, is to press a strip of duct tape firmly onto the surface. If the duct tape does not strongly adhere to the surface, oil and/or grease may be indicated. If grease or oil is present, the floor must be degreased before further surface preparation is performed.
- 3) Test for Moisture: There may be moisture in the concrete or moisture vapor may be seeping up through it. Test for moisture by taping a 2' x 2' plastic sheet over different areas of the floor. Examine the plastic after 24 hours for signs of moisture. If moisture is present the floor should not be coated until the source of the moisture is determined.²

¹ Curing compounds must be either chemically or mechanically removed prior to coating. Acid etching does not generally remove chemical curing compounds.

² Hydrostatic Pressure occurs when a body of water, restricted by any structure, is prevented from flowing along its normal path. The pressure created by this build of water exerts unpredictable amounts of pressure on the concrete itself and any coating that may be attached. This force has the capability of causing failure in a concrete foundation hence a failure in any coating system applied where hydrostatic pressure exists. Because the effects of hydrostatic pressure cannot be predicted, there

- 4) Test Adhesion of Previous Coatings: Some coating systems do not require the complete removal of previously applied coatings in order to repaint the floor but all existing coating that remains that is painted over must be tightly adherent. After required mechanical and chemical cleaning of the surface is accomplished, cut 2" x 2" X-cut into remaining coatings. Then apply 6" stripes of duct tape over the "X's" and press the duct tape firmly onto the floor and then quickly pull it off. If large portions of the prior coating come off with the tape additional surface preparation must be done before recoating.

4.13 The applicator of the coating is responsible for determining whether the floor will hold a coating or not. Abrasive blast cleaning may be necessary to completely remove all existing coatings and to provide a new surface profile. Some floors may be impregnated with oils, solvents, or water to such a degree that coating adhesion will be impossible even with abrasive blasting. If the floor has been heavily soiled in the past it is recommended that a core sample of the concrete be taken to determine the level of contamination. If the core sample indicates contamination into the concrete that cannot be removed by abrasive blasting, the floor will probably never allow a coating to adhere.

4.14 Degreasing a concrete floor

Dampen the concrete surface and then apply a solution of Extra Muscle Cleaner. Refer to product literature for dilution ratios. Keep the surface wet by adding water while scrubbing the solution over the entire floor with an electric floor scrubber or stiff bristle brush. Rinse floor thoroughly using a power washer with a minimum 1000-psi and a minimum fluid flow of 1 gpm. Final rinse water should be neutral-pH 7. Allow to dry. The color and dullness of the floor should be uniform. Dark areas indicate the presence of grease/oil and the floor must be degreased again. Check for invisible grease/oil in several areas of the floor by applying a 1:1 solution of muriatic acid to the floor. If the acid turns brown or does not react (bubble), grease/oil has penetrated the floor and a repeat degreasing procedure is necessary. Repeat the acid test after subsequent degreasing until all areas tested indicate the floor to be free of grease and oil. After repeat degreasing, rinse the floor by power washing to a neutral pH.

Duct tape should adhere tightly to a properly degreased floor. If the tape does not tightly adhere, the presence of grease is indicated and further degreasing is necessary.

4.15 Preparing a Concrete Floor By Acid Etching

- 1) Sweep the floor clean and dispose of dust. Remove from the floor any contaminant, including oil and grease. Dampen the floor and apply a 1:1 solution of muriatic acid and water through a sprinkling device. The acid should bubble vigorously when applied to the concrete. Coverage should be about 1 gallon of solution per 100 square feet. Allow reaction between solution and concrete to occur for approximately 3-5 minutes, and then follow with a stiff broom or mechanical scrubber to remove surface latence. Rinse the etched surface with clean water, preferably with a high-pressure washer. If use of a pressure washer is not possible, rinse and remove water a minimum of three times to ensure a complete rinse is obtained. Do not let the acid dry out on the floor. Continue power scrubbing while rinsing with clean potable water.
- 2) Household ammonia or soda ash may be added in the rinse to help neutralize the acid. Pick up the water. Litmus paper should be used to check the pH of the rinse water. If the rinse water is not pH neutral (pH 7-8) or if there appears to be a film on the floor, additional rinsing is necessary. Allow the surface to completely dry then vacuum again to remove fine particles loosened by the acid-etch.

DO NOT ALLOW UN-NEUTRALIZED ACID SOLUTION TO FLOW INTO THE SEWER SYSTEM OR GROUND.

exists no guarantee by Diamond Vogel that any coating will be able to withstand the forces capable of causing failure in the concrete substrate.

4.16 Preparing a Concrete Floor by Shot Blasting

Sweep the floor clean and dispose of dust. Remove from the floor any contaminant including oil and grease. Shot blast to produce a 3 - 4 mil profile on the concrete floor. The shot-blasting machine must be equipped with a vacuum system to recover shot and to reduce airborne dust and contaminants. After blasting sweep the floor to remove any shot, dust and loose contaminants. Areas that cannot be reached with the blasting machine must be mechanically abraded by hand held devices to remove curing compound and produce a minimum 3-4 mil profile.

4.17 Dynamic and Non-Dynamic Cracks

- 1) Horizontal dynamic cracks or joints greater than 1/4" should be filled with Vulkem #45 Self-Leveling Polyurethane sealant after the coating is applied (within three months). Seal vertical joints with Vulkem #116. Degloss the coating adjacent to the joint by scuffing with 3M #7440 Scotch-Brite hand pads. Vulkem #45 requires a minimum of 24 hours drying time to become tack free and requires 7 days for a full cure. This product cures by reacting with moisture in the air. Misting the sealant with moisture after application can speed up curing, but you must anticipate a period in which you cannot drive or walk directly onto the sealant.
- 2) Joints should be filled from the deepest point to the surface. Joints over 1/2" sealant depth should be controlled to a maximum of 1/2" with Closed Cell Backer Rod.
- 3) Fill all bug holes, spalled spots and random non-dynamic cracks with Nu-Klad 114A Epoxy Filler. Body-up compound with silica sand when filling holes over 1/4" in diameter. Areas must be dry and dust free. Apply Nu-Klad 114A Epoxy Filler into depressions with a putty knife and smooth to an aesthetic appearance. 114A will not shrink and cannot easily be sanded once cured. Allow 12-48 hours for cure depending upon temperature.

4.18 Finishing new concrete

Finish new concrete to a wood float finish or a broom finish. The appearance of the finish concrete should closely resemble coarse sandpaper. Hard smooth steel trowel finishes should be avoided. Contact your Diamond Vogel Representative prior to pouring a concrete floor that is to be coated with a protective finish so that finishing options may be discussed.

4.19 New Galvanized Metal

New Galvanized surfaces should be prepared using Clean'n Etch. A solution of 4 pts water: 1 part clean'n etch should be used. Spray the solution on the surface, allowing 5 – 10 minutes contact time and rinse thoroughly with water.

5.00 COATING PROCEDURES

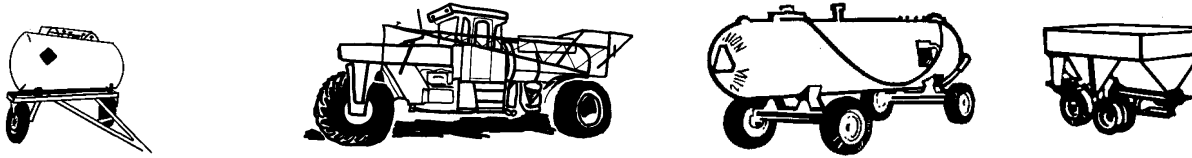
- 5.01 All equipment used shall meet all safety and regulatory criteria as outlined in Section 2.03 of this specification. Such conformity will be the sole responsibility of the applicator.
- 5.02 All containers of paint shall be thoroughly mixed to achieve a complete blending of the entire contents prior to use. Additional stirring of the material shall be repeated as required during application to prevent separation of the pigment and vehicle.
- 5.03 Isolation of equipment: The supervisor of the work should ensure that all power equipment involved in the project is locked in an off position before work begins.

- 5.04 Temperature Requirements: No coatings should be applied when the ambient temperature is below that which is specified within the given product or technical data supplied by the manufacturer, which are hereby made a part of this specification. Coatings applications should be done only when the surface temperature is more than 5 °F. above the dew point. Paint manufacturer's directions for cold weather applications shall be followed explicitly.
- 5.05 All paint shall be evenly applied in a uniform coat. The finished painting shall show no drips, runs or sagging of materials. All fresh paint shall be protected from blowing dirt or debris until sufficiently dry.
- 5.06 Film Thickness Requirements: Each coat of paint shall be applied at the rate specified to achieve the minimum Dry Film Thickness (DFT) required. However, in no case shall the specified DFT be exceeded by more than 20%. Deficiencies in the film thickness shall be corrected by the application of an additional coat(s) of paint.
- 5.07 The drying and curing of products specified with this proposal is affected by both temperature and humidity. It is the applicator's responsibility to determine the acceptability of temperature, humidity and degree of drying and curing before recoating or putting the facility or equipment into service. Strict adherence to the manufacturer's product labels and product information literature is required.
- 5.08 Where thinning is necessary, only the products of the paint manufacturer shall be allowed. All such thinning shall be done strictly in accordance with the manufacturer's instructions.
- 5.09 Clean-Up/Touch-up work upon completion. All spattering of paint material shall be carefully removed from adjoining surfaces. A detailed inspection of paintwork shall be made and any unsatisfactory portions shall be touched up or refinished to produce an acceptable job.
- 5.10 The person responsible for the work should also dispose of all used implements of service i.e., empty buckets, rubbish, wash solvents and debris, including discharged sand, resulting from the work. All such trash shall be removed from the premises and disposed of by the painting contractor.
- 5.11 Application of the coating may be made by brush, roller or spray, but in strict conformity to the manufacturer's published instructions where are hereby made a part of this specification. Spraying of exterior surfaces shall only be done by permission of the branch manager and with due regard of any hazard to adjacent areas; spray mist should not be allowed to drift onto adjacent property. Glass gauges, motor tags, labels, etc. must be protected with masking tape and/or paper before painting. All masking must be removed upon completion of the work.

6.00 COATING SPECIFIC AREAS

6.01 **MOBILE EQUIPMENT** - (Exterior)

Anhydrous Tool Bar Applicator, Liquid and Dry Applicators, Floater Applicators and Tenders, Wheeled Unloaders and Hopper Unloaders, 500-Gallon Anhydrous and Liquid Applicators, Anhydrous Nurse Tanks, Tanker Trucks and other miscellaneous Equipment:



SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME ² COAT (S)	FINISH ³ COAT (S)	APPLICATION RATE ⁴	MINIMUM DFT PER COAT
Cote-All System	SP-2 Hand Tool Clean or SP-3 Power Tool Clean	AZ-Series Universal Primer (spot prime)		226 – 340 ft ² /gal	2 – 3 mils
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Cote-All System	SP-6 Commercial Blast	AZ-Series Universal Primer (2 coats)		226 – 340 ft ² /gal	2 – 3 mils (ea.)
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Epoxy/Urethane System (professional application) High Performance System	SP-6 Commercial Blast	V-Tech 500 Epoxy Primer (2 coats)		165 – 248 ft ² /gal	4 – 6 mils (ea.)
			Pinnacle 330 HS (1 coat)	331 – 497 ft ² /gal	2 – 3 mils

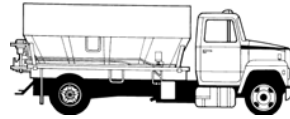
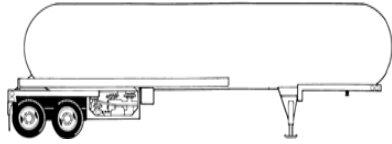
¹ When there is a special application need, contact your Diamond Vogel Representative to assist you in proper coating selection.

² Cote-All Universal Primer and V-Tech 500 Epoxy Primers are available in White-Red-Gray. If a quick dry primer is needed because of over spray concern, or the need for a shorter recoat time, contact your Diamond Vogel Representative to assist you in product selection.

³ Contact your Diamond Vogel Representative for specific colors in the AZ-Series Cote-All Enamel or in the Pinnacle Polyurethane 330HS products. Products specified are white.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.02 FLEET TRANSPORTATION SYSTEM



Grain truck

SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME ² COAT (S)	FINISH ³ COAT (S)	APPLICATION RATE ⁴	MINIMUM DFT PER COAT
Urethane Primer/ Urethane System (Professional Application) High Performance System	SP-6 Commercial Blast	Stratum Primer (2 Coats)	Pinnacle 460 (1 coat)	425 – 850 ft ² /gal 425 – 566 ft ² /gal	1 – 2 mils (ea.) 1.5 – 2 mils

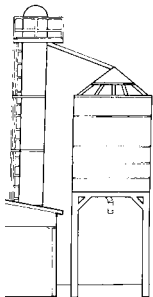
¹ For optional coating systems, contact your Diamond Vogel Representative to assist you in proper coating selection.

² Stratum is available in off white, gold and gray. Contact your Diamond Vogel Representative to assist you in product selection.

³ Pinnacle 330 HS may be substituted as a finish coat. Contact your Diamond Vogel Representative to assist you in product selection.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.03 LIQUID AND DRY BLENDERS - (Exterior)-Overhead Liquid and Dry Loading Station, Valves, and Catwalks
STEEL STRUCTURES AND CONVEYOR SYSTEMS - (Exterior)



SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME ² COAT (S)	FINISH ³ COAT (S)	APPLICATION RATE ⁴	MINIMUM DFT PER COAT
Cote-All System	SP-2 Hand Tool Clean or SP-3 Power Tool Clean	AZ-Series Universal Primer (spot prime)		226 – 340 ft ² /gal	2 – 3 mils
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Cote-All System	SP-6 Commercial Blast	AZ-Series Universal Primer (2 coats)		226 – 340 ft ² /gal	2 – 3 mils (ea.)
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Epoxy/Urethane System (professional application) High Performance System	SP-6 Commercial Blast	V-Tech 500 Epoxy Primer (2 coats)		160 – 240 ft ² /gal	4 – 6 mils (ea.)
			Pinnacle 330 HS (1 coat)	331 – 497 ft ² /gal	2 – 3 mils

¹ When there is a special application need, contact your Diamond Vogel Representative to assist you in proper coating selection.

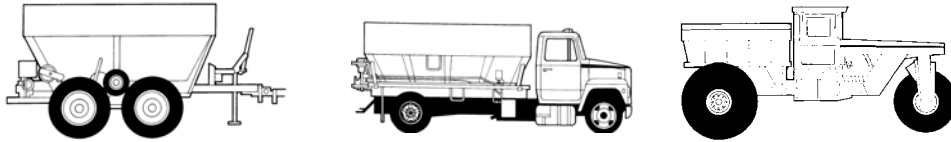
² Cote-All Universal Primer and V-Tech 500 Epoxy Primer are available in White-Red-Gray. If a quick dry primer is needed because of over spray concern, or the need for a shorter redcoat time, contact your Diamond Vogel Representative to assist you in product selection.

³ Contact your Diamond Vogel Representative for specific colors in the AZ-Series Cote-All Enamel or in the Pinnacle Polyurethane 330HS products. Products specified are white.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.04 LIQUID AND DRY BLENDING BUILDING AND APPLICATORS

Interior Structural Steel, Interior Hopper Lining and Conveyor Systems

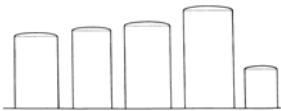


SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT (S)	FINISH COAT (S)	APPLICATION RATE ¹	MINIMUM DFT PER COAT
High Solids Epoxy System	SP-2 Hand Tool Clean or SP-3 Power Tool Clean	Mult-E-Poxy 180 (spot prime)		159 – 254 ft ² /gal	5 – 8 mils
			Mult-E-Poxy 180 (1 coat)	159 – 254 ft ² /gal	5 – 8 mils
High Solids Epoxy System	SP-6 Commercial Blast	Mult-E-Poxy 180 (1 coat)		159 – 254 ft ² /gal	5 – 8 mils
			Mult-E-Poxy 180 (1 coat)	159 – 254 ft ² /gal	5 – 8 mils

¹ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.05 TANK LININGS

Liquid Fertilizer and Petroleum Product Tank Linings - (Consult with your Diamond Vogel Representative when doing a tank lining project)



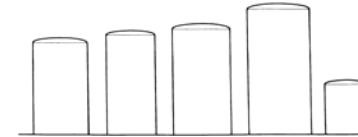
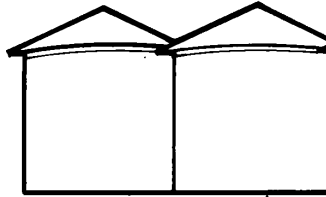
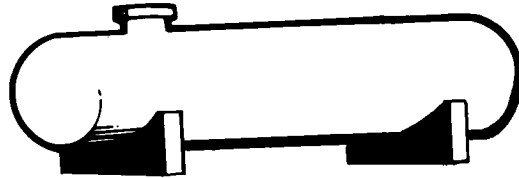
SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME COAT (S)	FINISH COAT (S)	APPLICATION RATE ²	MINIMUM DFT PER COAT
HS Epoxy	Clean with Extra Muscle Prepaint Cleaner SP-5 White Metal Blast		Amercoat 90HS (2 coats)	171 – 257 ft ² /gal	4 – 6 mils (ea.)

¹ When doing a tank-lining project consult with your Diamond Vogel Representative.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.06 STEEL BULK STORAGE TANKS - (Exterior)

Liquid Fertilizer, Anhydrous Ammonia, Gaseous Liquid, LP-Propane, Grain, Feed, Seed and Petroleum Tanks



SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME ² COAT(S)	FINISH ³ COAT(S)	APPLICATION RATE ⁴	MINIMUM DFT PER COAT
Cote-All System	SP-2 Hand Tool Clean or SP-3 Power Tool Clean	AZ-Series Universal Primer (spot prime)		226 – 340 ft ² /gal	2 – 3 mils
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Cote-All System	SP-6 Commercial Blast	AZ-Series Universal Primer (2 coats)		226 – 340 ft ² /gal	2 – 3 mils
			Cote-All Multi-Purpose Enamel AZ-1408 (1 - 2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Epoxy/Urethane System (professional application) High Performance System	SP-6 Commercial Blast	V-Tech 500 Epoxy Primer (2 coats)		160 – 240 ft ² /gal	4 – 6 mils (ea.)
			Pinnacle 330 HS (1 coat)	331 – 497 ft ² /gal	2 – 3 mils

¹ When there is a special application need, contact your Diamond Vogel Representative to assist you in proper coating selection.

² Cote-All Universal Primer and V-Tech 500 Epoxy Primer are available in White-Red-Gray. If a quick dry primer is needed because of over spray concern, or the need for a shorter recoat time, contact your Diamond Vogel Representative to assist you in product selection.

³ Contact your Diamond Vogel Representative for specific colors in the AZ-Series Cote-All Enamel or in the Pinnacle Polyurethane 330HS products. Products specified are white.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.07 TANK FARM SECONDARY CONTAINMENT

SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S)	APPLICATION RATE ²	MINIMUM DFT PER COAT
Epoxy/Poly-Siloxane (New or Bare Concrete)	Acid Etch per Section 4.15 Hole & crack treatment per Section 4.17	Amerlock 400 (1 coat)		166 – 322 ft ² /gal	4 – 8 mils
			PSX 700 (1 coat)	206 – 481 ft ² /gal	3 – 7 mils

¹ When doing a secondary containment system contact your Diamond Vogel Representative.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.08 STORAGE TANKS

Fiberglass (gel coat) Storage Tanks

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH ¹ COAT(S)	APPLICATION RATE ²	MINIMUM DFT PER COAT
Alkyd Enamel System	SP-7 Brush-off Blast/ SP-11 Power Tool Clean		AZ-1408 (2 coats)	225 – 338 ft ² /gal	2 – 3 mils (ea.)
Acrylic System	SP-7 Brush-off Blast/ SP-11 Power Tool Clean	V-Cote 200 (1 coat)	V-Cote 222 (1 coat)	209 – 314 ft ² /gal 214 – 322 ft ² /gal	2 – 3 mils 2 – 3 mils

¹ Contact your Diamond Vogel Representative for specific colors in AZ-Series Cote-All Enamel and Pinnacle 330HS products. Products specified are white.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

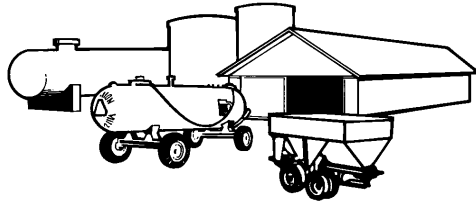
6.09 CONCRETE FLOORS

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S)	APPLICATION RATE ¹	MINIMUM DFT PER COAT
Epoxy / Urethane Floor Sealer System	Clean and Abrade or Acid Etch	V-Tech 505 Epoxy Concrete Sealer		312 – 625 ft ² /gal	1 – 2 mils
			Miracle Glaze	300 – 450 ft ² /gal	2 – 3 mils
Epoxy /Epoxy High Build System	Clean and Abrade or Acid Etch	Mult-E-Poxy 180	Mult-E-Poxy 180	159 – 254 ft ² /gal 159 – 254 ft ² /gal	5 – 8 mils 5 – 8 mils
Epoxy / Urethane High Build System	Clean and Abrade or Acid Etch	Mult-E-Poxy 180	Pinnacle 330HS	159 – 254 ft ² /gal 331 – 497 ft ² /gal	5 – 8 mils 2 – 3 mils

¹ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.10 BUILDINGS

Exterior plywood clad buildings



SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH ¹ COAT(S)	APPLICATION RATE ²	MINIMUM DFT PER COAT
New Construction	New wood should weather 6-9 months. Clean per SP-1. See Sec. 4.00. Countersink all exposed nails & putty nail holes.	BU-Series Sure Grip (2 coats)	BA-Series Permacryl Exterior (2 coats)	305 – 407 ft ² /gal	1.5 – 2 mils (ea.)
				320 – 427 ft ² /gal	1.5 – 2 mils
Previously Painted	Power wash to remove non-adherent coatings. Test adhesion required. See Sec. 4.00.	BU-Series Sure Grip (spot prime)	BA-Series Permacryl Exterior (2 coats)	305 – 407 ft ² /gal	1.5 – 2 mils
				320 – 427 ft ² /gal	1.5 – 2 mils
Wood trim	As above; spot prime bare wood, nail heads and puttied areas	BU-Series Sure Grip (spot prime)	BN-Series Permacryl Exterior (new wood 2 coats) (repaint - 1 coat)	305 – 407 ft ² /gal	1.5 – 2 mils
				289 – 385 ft ² /gal	1.5 – 2 mils (ea.)

¹ Contact your Diamond Vogel Representative for specific color selection or alternate primer/finish systems.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.11 BUILDINGS

Dry Fertilizer Storage Building - (Interior)

SYSTEM ALTERNATIVES ¹	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S)	APPLICATION RATE ⁴	MINIMUM DFT PER COAT
New Plywood	New wood should weather 6-9 months. Clean per SP-1. Countersink all exposed nails & putty nail holes.	BU-Series Sure Grip (1 coat)	Pinnacle 330 HS (1 coat)	305 – 407 ft ² /gal 331 – 497 ft ² /gal	1.5 – 2 mils 2 – 3 mils
Bare Concrete Floors ²	Degrease and clean per Section 4.14 Acid Etch per Section 4.15 ³ Dynamic and Non-Dynamic cracks per Section 4.17	Multi-E-Poxy 180 (1 coat)	Multi-E-Poxy 180 (1 coat)	159 – 254 ft ² /gal 159 – 254 ft ² /gal	5 – 8 mils 5 – 8 mils

¹ Contact your Diamond Vogel Representative when using these systems.

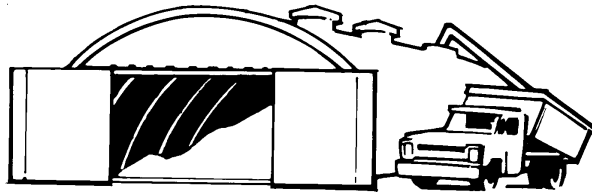
² Concrete must be cured a minimum of 30 days.

³ Curing compounds must be either chemically or mechanically removed prior to coating. Acid etching does not generally remove chemical curing compounds.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.12 BUILDINGS

Interior Galvanized Metal Grain Storage

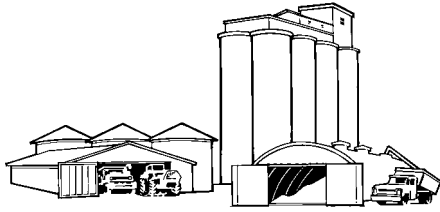


SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S)	APPLICATION RATE ¹	MINIMUM DFT PER COAT
High Solids Epoxy System	SP-2 Hand Tool Clean or SP-3 Power Tool Clean	Multi-E-Poxy 180 (spot prime)		159 – 254 ft ² /gal	5 – 8 mils
			Multi-E-Poxy 180 (1 coat)	159 – 254 ft ² /gal	5 – 8 mils
High Solids Epoxy System	SP-6 Commercial Blast	Multi-E-Poxy 180 (1 coat)	Multi-E-Poxy 180 (1 coat)	159 – 254 ft ² /gal 159 – 254 ft ² /gal	5 – 8 mils 5 – 8 mils

¹ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.13 BUILDINGS

Exterior Galvanized Metal Buildings



SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH ¹ COAT(S)	APPLICATION RATE ²	MINIMUM DFT PER COAT
Weathered Galvanized (rusted)	SP-7 Brush-off Blast	V-Tech 700 (1 coat)		246 – 369 ft ² /gal	2 – 3 mils
Weathered Galvanized (no rust)	Clean per section 4.03	V-Cote 200 (1coat)	V-Cote 222 (1 coat)	209 – 313 ft ² /gal 214 – 322 ft ² /gal	2 – 3 mils 2 – 3 mils
New Galvanized	Clean per section 4.19	V-Cote 200 (1 coat)	V-Cote 222 (1 coat)	209 – 313 ft ² /gal 214 – 322 ft ² /gal	2 – 3 mils 2 – 3 mils

¹ If an aluminum finish is desired use Mult-E-Poxy 230AL as a primer/finish

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.14 BUILDINGS

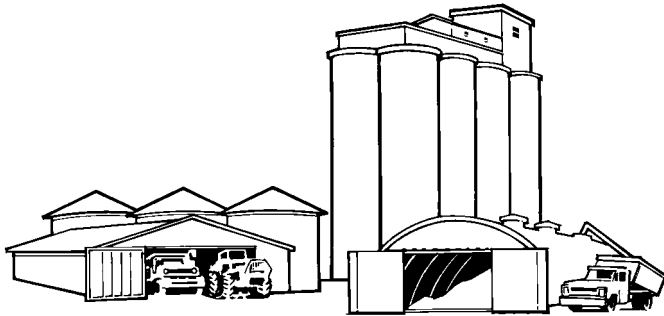
Waterproofing Galvanized Metal Roofs

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S)	APPLICATION RATE ¹	MINIMUM DFT PER COAT
Rust-Oleum Roofing System	Power clean per Sec. 4.03. Apply 5300 VIP sealant for voids in seams and over fasteners. Apply 5100 1/16" - 1/8" over seam.	V-Tech 700 (spot prime rusted areas)	Rust-Oleum 3990 (1 coat)	246 – 369 ft ² /gal spray 50 ft ² /gal	2 – 3 mils 16 mils

¹ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.15 BUILDINGS

Factory Finished Metal Buildings



SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S) ¹	APPLICATION RATE ²	MINIMUM DFT PER COAT
Acrylic System	power clean per Sec. 4.03 test adhesion of existing coatings per Sec. 4.01	V-Cote 200 (1 coat)		209 – 313 ft ² /gal	2 – 3 mils
			V-Cote 222 (1 coat)	214 – 322 ft ² /gal	2 – 3 mils
Alkyd/Acrylic System	power clean per Sec. 4.03 test adhesion of existing coatings per Sec. 4.01	AZ-Series Universal Primer (1 coat)		226 – 340 ft ² /gal	2 – 3 mils
			V-Cote 222 (1 coat)	214 – 322 ft ² /gal	2 – 3 mils

¹ Contact your Diamond Vogel Representative for specific colors in V-Cote 222.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.16 BUILDINGS

Exterior Masonry Structures

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH COAT(S) ¹	APPLICATION RATE ²	MINIMUM DFT PER COAT
New concrete block	New concrete must cure 30 days. Standards for concrete apply; see section 4.00 for details.	BF-1501 Permafil (1 coat)	BA-Series Permacryl Exterior (1-2 coats)	52 – 157 ft ² /gal 320 – 427 ft ² /gal	5 – 15 mils 1.5 – 2 mils (ea.)
New poured concrete	New concrete must cure 30 days. Standards for concrete apply; see section 4.00 for details.	BU-Series Sure Grip (1 coat)	BA-Series Permacryl Exterior (1-2 coats)	305 – 407 ft ² /gal 320 – 427 ft ² /gal	1.5 – 2 mils 1.5 – 2 mils (ea.)
Previously painted concrete (poured or block)	Power wash and dry. Salt deposits must be acid neutralized.		BA-Series Permacryl Exterior (2 coats)	320 – 427 ft ² /gal	1.5 – 2 mils (ea.)
Elastomeric Waterproofing for Poured Concrete	As above relative to new or previously painted.	MC-0521 Surface Conditioner (1 coat)	MC-Series Permaflex (2 coats)	200 – 300 ft ² /gal 100 – 120 ft ² /gal	n/a 5 – 6 mils (ea.)
Elastomeric Waterproofing for Concrete Block	As above relative to new or previously painted.	BF-1501 Permafil (1 coat)	MC-Series Permaflex (2 coats)	52 – 157 ft ² /gal 80 – 100 ft ² /gal	2 – 3 mils 5 – 6 mils (ea.)

¹ Contact your Diamond Vogel Representative for specific colors in BA-Series Permacryl and MC-Series Permaflex or for alternate primer/finish systems.

² Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.17 CENEX/AMPRIDE CONVENIENCE STORES - (New Construction)

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH 2 COATS	APPLICATION RATE ⁵	MINIMUM DFT PER COAT
Exterior Concrete Block Walls	New concrete must cure 30 days. Standards for concrete apply; see section 4.00 for details.	BF-1501 Permafil (1 coat)	BA-1531 Permacryl ² Color: #0-146 C/A Lt Gray	52 – 157 ft ² /gal 320 – 427 ft ² /gal	5 – 15 mils 1.5 – 2 mils (ea.)
Exterior Poured Concrete Walls	New concrete must cure 30 days. Standards for concrete apply; see section 4.00 for details.	BU-Series Sure Grip (1 coat)	BA-1531 Permacryl ² Color: #0-146 C/A Lt Gray	305 – 407 ft ² /gal 320 – 427 ft ² /gal	1.5 – 2 mils 1.5 – 2 mils (ea.)
Pre-primed Exterior Trim, Canopy Columns, Metal Fascia, Pump Island, Island Bollards, Misc. Steel	see section 4.00	AZ-Series Universal Primer ¹ (1 coat)	V-Cote 222 ^{2&3}	226 – 340 ft ² /gal 214 – 322 ft ² /gal	2 – 3 mils 2 – 3 mils (ea.)
Interior Concrete Block Walls Restrooms, Storage Area, Show Room	New concrete must cure 30 days. Standards for concrete apply; see section 4.00 for details.	BF-1515 Dia-Pro Block Filler (1 coat)	DS-Series Permacryl S/G ² Color: DV#8761	51 – 153 ft ² /gal 288 – 384 ft ² /gal	5 – 15 mils 1.5 – 2 mils (ea.)
Interior Drywall Restroom, Storage Rooms, Show Room	Sand tape joints and spackled areas remove dust	DU-1507 Latex Primer (1 coat)	DS-Series Permacryl S/G ₂ Color: DV#8761	218 ft ² /gal 288 – 384 ft ² /gal	1.5 mils 1.5 – 2 mils (ea.)
Interior Doors & Frames (Employee & Customer)	SP-2 Hand Tool Clean	AZ-Series Cote-All Universal Primer (1 coat)	CS-Series Pro Plus S/G Alkyd ² (Employee) Color: DV#8761 (Customer) Color: DV#8759	226 – 340 ft ² /gal 192 – 289 ft ² /gal	2 – 3 mils 2 – 3 mils (ea.)

¹ Use AZ-1400 Cote-All Universal White Primer under MC-5504 Safety Red color to achieve better hide and color clarity. Two coats maybe required to achieve color uniformity. Use AZ-0400 Cote-All Universal Gray Primer under MC-8504 Petro Gray. Two coats maybe required to achieve color uniformity. For Fast Dry Primer option use V-Tech 600 Series.

² See section 6.19 for color formulations.

³ V-Cote 222 Acrylic Maintenance Finish is available in Cenex System Colors: MC-8504 Petro Gray and MC-5504 Safety Red. For optional topcoat system contact your Diamond Vogel Representative.

⁴ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.18 CENEX/AMPRIDE CONVENIENCE STORES - (Redo and Identity Conversion Stores)

SYSTEM ALTERNATIVES	SURFACE PREP RECOMMENDATIONS	PRIME COAT(S)	FINISH 1 or 2 COATS	APPLICATION RATE ⁵	MINIMUM DFT PER COAT
Exterior Concrete Block Walls	Power wash and dry. Salt deposits must be acid neutralized.	prime bare areas BF-1501 Permafil	BA-1531 Permacryl Ext ³ Color: #0-146 C/A Lt Gray	52 – 157 ft ² /gal 320 – 427 ft ² /gal	5 – 15 mils 1.5 – 2 mils
Exterior Poured Concrete Walls	Power wash and dry. Salt deposits must be acid neutralized.	prime bare areas BU-1501 Sure Grip	BA-1531 Permacryl Ext ³ Color: #0-146 C/A Lt Gray	305 – 407 ft ² /gal 320 – 427 ft ² /gal	1.5 – 2 mils 1.5 – 2 mils
Exterior Trim, Canopy Columns, Metal Fascia, Pump Island, Island Bollards, Misc. Steel	SP-2 Hand Tool Clean or SP-3 Power Tool Clean See Sections 4.09 – 4.10	AZ-Series ² Universal Primer	V-Cote 222 ^{3&4} (1 or 2 coats)	226 – 340 ft ² /gal 187 – 281 ft ² /gal	2 – 3 mils 2 – 3 mils
Interior Concrete Block Walls Restrooms, Storage Area, Show Room	Clean and degloss see section 4.00 for details	prime bare areas BF-1515 Dia-Pro Block Filler	DS-Series Permacryl S/G ³ Color: DV#8761	51 – 153 ft ² /gal 288 – 384 ft ² /gal	5 – 15 mils 1.5 – 2 mils
Interior Drywall Restroom, Storage Rooms, Show Room	Clean and degloss see section 4.00 for details	prime bare areas DU-1507 Latex Primer	DS-Series Permacryl S/G ³ Color: DV#8761	218 ft ² /gal 288 – 384 ft ² /gal	1.5 mils 1.5 – 2 mils
Interior Doors & Frames (Employee & Customer)	SP-2 Hand Tool Clean	AZ-Series Cote-All Universal Primer (1 coat)	CS-Series Pro Plus S/G Alkyd ³ (Employee) Color: DV#8761 (Customer) Color: DV#8759	226 – 340 ft ² /gal 192 – 289 ft ² /gal	2 – 3 mils 2 – 3 mils (ea.)

¹ Two coats may be required if there is an extreme color change over previous finish.

² Use AZ-1400 Cote-All Universal White Primer under MC-5504 Safety Red color to achieve better hide and color clarity. Two coats maybe required to achieve color uniformity. Use AZ-0400 Cote-All Universal Gray Primer under MC8504 Petro Gray. Two coats maybe required to achieve color uniformity. For Fast Dry Primer option use V-Tech 600 Series

³ See section 6.19 for color formulations.

⁴ V-Cote 222 Acrylic Maintenance Finish is available in Cenex System Colors: MC-8504 Petro Gray(Dark Gray) and MC-5504 Safety Red. For optional topcoat system contact your Diamond Vogel Representative.

⁵ Spread rates are estimates based on product's volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity, texture and wind conditions.

6.19 COOPERATIVE BRAND COLOR STANDARD AND FORMULATIONS

COLOR ¹	COATING/BASE	COLORANT SYSTEM	FORMULA (PER GALLON)
#8-19 Cenex/Ampride Petro Gray Exterior Trim - Canopy, supports, metal facing, misc. steel (ext. trim)	V-Cote 222/MC-8504 Petro Gray AZ-Series Cote-All Enamel Pinnacle 330HS IG-0224	ICS 844 ICS 844	Ready-Mixed Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#5-37 Cenex/Ampride Red (Canopy Trim)	V-Cote 222/MC-5504 Safety Red AZ- Series Cote-All Enamel Safety Red (AZ-5402) Pinnacle 330HS IG-0224	ICS 844	Ready-Mixed Ready-Mixed Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#0-146 C/A Light Gray Exterior Walls	Permacryl Exterior Flat BA-1531 V-Cote 222/MC-1541	ACS System ACS System	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
DV#8761 Kelmscott Interior Walls and Door Frames (Employee)	DV#8761 Permacryl Semi-Gloss DS-Series Base DV#8761B Pro Plus Alkyd Semi-Gloss CS-Series Base	ACS System ACS System	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
DV#8759B Woodbridge Interior Doors & Frames (Customer)	Pro Plus Alkyd Semi-Gloss CS-Series Base	ACS System	Call Customer Service in Marshalltown at 800-387-8426 for tint formula

¹ The color number indicates a corporate color standard identification number.

6.20 LOGO COLORS FOR COOPERATIVE BRAND SYSTEM

COLOR ¹	COATING/BASE	COLORANT SYSTEM	FORMULA (PER GALLON)
#6-87 Agrilience #PMS-349 Green	V-Cote 222/MC-0544 Neutral Base	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#6-88 Land O' Lakes Feed #PMS-355 Green	V-Cote 222/MC-0544 Neutral Base	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
Agrilience Land O' Lakes Feed Black	BN-9502 Permacryl Ext. S/G Black IG-Series Pinnacle 330HS	Ready-Mixed ICS 844	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#7-49 Land O' Lakes Feed #PMS-286 Blue	IG-Series Pinnacle 330HS V-Cote 222/MC-0544 Neutral Base	ICS 844 ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#6-90 FC Coop PMS-371U Dark Green (uncoated paper)	V-Cote 222/MC-0544	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#6-76 FC Coop PMS-5793U Light Green (uncoated paper)	V-Cote 222/MC	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
Ampride Burgundy	V-Cote 222/MC-0544 AZ-Series Cote-All (AZ-0413) Mult-E-Poxy 180 Pinnacle 330HS/IG-0224	ICS 896 ICS 844 ICS 844 ICS 844	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#5-44 Croplan PMS-1795C Red	V-Cote 222/MC-0544	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula
#6-75 Croplan PMS-575C Green	V-Cote 222/MC-0544	ICS 896	Call Customer Service in Marshalltown at 800-387-8426 for tint formula

The color number indicates a corporate color standard identification number.

7.00 QUALITY ASSURANCE

- 7.01 In order to assure that work required by this specification is performed satisfactorily, location management should review the specification with all workers and a pre-job walk through of each project should be conducted.
- 7.02 **Estimating Size of Surface Area:**
It should be the joint responsibility of the location management and coatings applicator to establish the total amount of surface area to be covered and the minimum number of gallons required to produce the required film thickness based upon the means of application. The life of a coating system directly correlates to the application of the recommended film thickness of the paint. In order for location management to determine that adequate material has been purchased and applied, it is necessary to have agreement on how many square feet of area are to be painted and how many square feet can be covered per gallon to produce the recommended dry film thickness.
- 7.03 Once the job has been scheduled, the location manager should appoint a Project Supervisor to schedule an inspection routine to insure that each step in the specification is performed. The most important stages of the job when inspection should occur are:
1. after surface preparation has been completed.
 2. during application of the coating to check wet film thickness. Checking wet film thickness (WFT) is a very useful way to estimate dry film thickness. (Multiply WFT by volume solids = dry film thickness). If the coating is thinned, the volume solids will be reduced and this formula has to be adjusted accordingly.
 3. after the job is completed to approve appearance and clean up.
- 7.04 Each coat of paint shall be applied at the rate specified to achieve the minimum dry mil thickness required. Deficiencies in the film thickness shall be corrected by the application of an additional coat(s) of paint.
- 7.05 The Project Supervisor may periodically check the wet film thickness of the coating applied and will have the right to require additional coats to be applied to accomplish the minimum dry film thickness.
- 7.06 All paint shall be evenly applied in a uniform coat. The finished painting shall show no drips, runs or sagging of materials. All fresh paint shall be protected from blowing dirt or debris until sufficiently dry.
- 7.07 Waterborne coatings require a minimum surface temperature of 50 °F. in order to properly dry and cure. This surface temperature must be maintained for a period of time after application in order to achieve proper film formation. Generally the minimum time necessary is four hours after application. Some coatings may require longer than four hours. The coating manufacturer's recommendation should be strictly adhered to.
- 7.08 **Hydrostatic Pressure** occurs when a body of water, restricted by any structure, is prevented from flowing along its normal path. The pressure created by this build of water exerts unpredictable amounts of pressure on the concrete itself and any coating that may be attached. This force has the capability of causing failure in a concrete foundation hence a failure in any coating system applied where hydrostatic pressure exists. Surface preparation of the concrete substrate is therefore inherent to coating application. Coatings subject to hydrostatic pressure may fail, i.e. bubbling, blisters, degradation, loss of adhesion, deterioration of film integrity. Because the effects of hydrostatic pressure cannot be predicted, there exists no guarantee by Diamond Vogel that any coating will be able to withstand the forces capable of causing failure in the concrete substrate.

8.00 USER RESPONSIBILITY

8.01 It is understood that all parties involved will carefully read this document, all attachments, and the product labels prior to use or application.

8.02 Diamond Vogel Paint's liability on any claim of any kind, including claims based upon Diamond Vogel's negligence or strict liability, for any loss or damage arising out of, connected with or resulting from use of products or procedures included in this specification, shall in no case exceed the purchase price allocable to the products of part thereof which give rise to the claim. In no event shall Diamond Vogel be liable for consequential or incidental damages.

8.03 List of Product Data Sheets, which are included in the next section. (MSDS Sheets are available on request from Diamond Vogel Customer Service):

A.	AZ Series	Cote-All Enamel
B.	AZ-Series	Cote-All Universal Primer
C.	BA-Series	Permacryl Exterior Flat Latex
D.	BF-1501	Permafil High Performance Acrylic Block Filler
E.	BF-1515	Dia-Pro Block Filler
F.	BN-Series	Permacryl Exterior Semi-Gloss Latex
G.	BU-Series	Sure-Grip Acrylic Primer
H.	CS-Series	Pro Plus Semi-Gloss Alkyd
I.	DS-Series	Permacryl Interior Semi-Gloss Latex Enamel
J.	DU-1507	PVA Interior Latex Primer/Sealer
K.	MC-0521	Permaflex Surface Conditioner
L.	MC-Series	Permaflex Elastomeric
M.	Miracle Glaze	Urethane Sealer
N.	Mult-E-Poxy 180	Epoxy Mastic (2 component)
O.	Mult-E-Poxy 230AL	Epoxy Mastic Aluminum
p.	Pinnacle 330HS	High Solids Acrylic Polyurethane
Q.	Pinnacle 460	Fleet Finish Polyurethane Gloss
R.	Stratum Primer	Urethane Primer System (2 component) PG-Series
S.	V-Cote 200	Acrylic Maintenance Primer/Finish
T.	V-Cote 222	Acrylic Maintenance Finish
U.	V-Tech 500	Hi-Build Epoxy Primer
V.	V-Tech 505	Clear Epoxy Concrete Primer/Sealer
W.	V-Tech 700	Zinc Dust Metal Primer
X.	Amercoat 90HS	High Performance Epoxy
Y.	Amerlock 400AL	High Solids Epoxy
Z.	Nu-Klad 114A	Epoxy Filler Compound
AA.	Nu-Klad 965	Modified Acrylic Cement
BB.	PSX 700	Engineered Siloxane Coating
CC.	3M Scotch-Brite	Surface Conditioning Product Brochure
DD.	VIP 5000 Series	Ter- Polymer Sealants
EE.	Vulkem #45	Pourable Polyurethane Sealant
FF.	Vulkem #116	One-part Urethane
GG.	705	Extra Muscle Prepaint Cleaner
HH.	3990	High Build Acrylic Elastomeric Roof Coating