

Vanberg Specialized Coatings

Armor-Prime Clear Epoxy Data Sheet



PROFESSIONAL COATINGS

PRODUCT DESCRIPTION:

ARMOR-PRIME CLEAR is a two-component 100% solids epoxy formulated to prevent off-gassing in concrete and to provide superior adhesion to concrete. It contains zero VOC's and meets USDA guidelines.

RECOMMENDED USAGE:

ARMOR-PRIME is an ideal primer for deep penetration to prevent out-gassing. Unique design allows it to be used on slightly damp concrete. It also can be used as a patching grout using **ES NATURAL** sand blend. Use to strengthen weak or stress cracked concrete before top coating. Accepts **VSC COLOR ADDITIVES**.

PACKAGING INFORMATION:

- 1.5 gallon (5.6L) unit #AC110
- 15 Gallon (56.8L) unit packaged in three proportioned 5 gallon (18.9L) pails #AC110-15

COVERAGE (As a Primer):

200 to 275 sq. ft./gal. @ 8 – 6 mils

CURE SCHEDULE:

Pot life (1 1/2 gallon volume)	15 minutes @ 75° F
Recoat or topcoat	5-6 hours @ 75° F
Light foot traffic	8-12 hours @ 75° F
Full cure (heavy traffic)	24 hours @ 75° F

LIMITATIONS:

- Color stability may be affected by environmental conditions such as high humidity or chemical exposure.
- This product is not UV color stable so a top coat is recommended.
- Substrate temperature must be 50° F
- All new concrete must be cured for at least 30 days prior to application.
- See reverse side for application instructions.
- Physical properties are typical values and not specifications.
- See reverse side for limitations of our liability and warranty.

FLEXURAL STRENGTH	14,300 psi @ ASTM D790 - 1/2" x 1/2" bars span 4"
YIELD COMPRESSIVE STRENGTH	14,100 psi @ ASTM D695 - 1/2" x 1/2" bars
TENSILE STRENGTH	9,000 psi @ ASTM D638 - testing dimensions F=2.25", W=0.500", T=0.125", D=4.5" and rate = 0.2"/minute.
ULTIMATE ELONGATION	3.5%
BOND STRENGTH	>400 psi (100% concrete failure)
ABRASION RESISTANCE	Taber Abraser CS-17 calibrase wheel with 1000 gram total load and 1000 cycles = .04 g loss
ADHESION	450 psi @ elcometer (concrete failure, no delamination)
HARDNESS	Shore D = 70-75
VOLATILE ORGANIC CONTENT	Nearly zero pounds per gallon.
DOT CLASSIFICATION	Part A "not regulated" Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII"
SHELF LIFE	1 year in unopened containers

COVERAGE:

This product should be applied at the rate of approximately 200 sq. ft. up to 250 sq. ft. per gallon. As with all coatings, coverage is dependent on the smoothness and porosity of the surface. Since this product is 100% solids, it can be applied as thick as needed.

SURFACE PREPARATION:

The substrate must be clean, dry and sound with new concrete cured for at least 30 days at 70°F (21°C). A moisture test is recommended. Remove dust, laitance, grease, curing compounds, waxes, foreign particles, disintegrated or soft base materials, and any previously applied potentially incompatible coatings. Create a surface profile on the surface by steel shot blasting, mechanical abrasion or acid etching. Repair cracks and joints with VSC's **EPOXY GEL, JOINT-FILL** or other repair products. For additional concrete preparation information and methods, refer to VSC's Surface Preparation Guide. If the concrete surface is not prepared properly, product adhesion can be a problem.

FOR BEST RESULTS:

- Use for interior applications (UV exposure can discolor).
- New concrete must cure for at least 30 days @ 70 F.
- DO NOT thin EPOXY without consulting VSC.
- DO NOT use when humidity exceeds 75% indoors.
- Allow each coat to dry tack-free before recoating.
- Apply each coat within 24 hours of previous coat.
- Discard any material subjected to freezing.
- DO NOT apply to structurally unsound surfaces.
- Apply a test patch to ensure adhesion.

GENERAL PRODUCT DATA	
FEATURE	ADVANTAGE
MIX RATIO	1 part Hardener to 2 parts Resin by volume
APPLICATION TEMPERATURE	55°-85° F with relative humidity below 75% for best results.
COLORS AVAILABLE	Clear- Gardner color 2.
FINISH CHARACTERISTICS	Gloss (low sheen at 60° @ Erichsen glossmeter)
TOPCOAT	Any VSC Top Coats
SOLIDS BY WEIGHT	100% (+/- 1%)
SOLIDS BY VOLUME	100% (+/- 1%)
VISCOSITY	Mixed = 400 - 450 cps (typical)

Review VSC'S Material Safety Data Sheets (MSDS and Data Sheet) for the primer prior to mixing and applying.

MIXING:

Avoid mixing and application of this product if the floor temperature is below 55F (10°C) or above 85F (29°C). Also avoid application if the humidity is higher than 75% R.H. The product temperature should be at or near 70°F. The temperature of the floor, materials and air in the area of the installation all play a role in how the product will apply and cure. **For pre-packaged kits:** Carefully pour entire contents of Hardener and the Resin into a 5-gallon container. DO NOT change the ratio of Hardener to Resin. Blend thoroughly for 2 to 3 minutes with a spiral-mixing blade (PROP MIXER available from VSC) attached to a low-speed (400-600 RPM) 1/2 inch electric drill. Take care not to induce air into the material during mixing. This will cause "bubbles" in the coating when applied. **For Bulk Units:** Portion out Hardener and Resin into a clean 5 gallon (18.9 L) pail according to the mix ratio on the front of this data sheet. Mix thoroughly as stated above.

Colorants: VSC Colorants can be added to CLEAR EPOXIES by mixing the colorant with the Resin before adding the Hardener. Refer to VSC Colorant Data Sheet for appropriate levels of colorant addition. Typically one quart colorant per 3-gallon unit. **VSC EPOXY CATALYST (KICKER)** can be mixed into the epoxy to hasten cure (see Data Sheet).

POT LIFE:

At 75F (23.9°C) and 50% R.H., this epoxy has a useful pot life of approximately 15 minutes. If the product or conditions become warmer the pot life and working times will be shortened significantly. Using any product beyond the useful life will result in variable results and therefore any mixed product beyond the pot life should be discarded. Apply all material to the floor as quickly as possible to increase working time. If product begins to heat or steam do not put it on the floor (Discard).

APPLICATION:

The recommended application of this product involves pouring it in a narrow line directly onto the concrete surface and then spreading it with a serrated or flat bladed squeegee. Use a brush or 4" epoxy roller along edges and around equipment (cut-in). Spread the coating in a continuous manner from one side of the area being coated to the other. Spread the epoxy at the decided upon coverage rate. Immediately follow with a 3/8" (.95 cm) nap epoxy roller cover. The epoxy should be rolled as evenly as possible to eliminate spike shoe and squeegee marks. Overlap the next column to be rolled by at least 1/2" (1.3cm) with the previously rolled column. Avoid excess rolling of the epoxy with the roller to avoid splatter and lessen chances of bubbling of the final film. To achieve a smooth surface, or to best cover imperfections in the floor, it is recommended to roll the coating with a spiked or looped roller. The individual(s) applying the epoxy should be wearing "spiked sandals" available from VSC. Allow the epoxy to cure thoroughly before mixing and applying the

next coat (if used). It should be tack-free before recoating. If the humidity gets very high, the product may exhibit a "blush". This can be removed with a solvent wipe or by screening before applying the next coat.

CLEAN UP:

Use **SOLVENT 101** or xylol.

DISPOSAL:

Empty containers may contain product residue, including flammable or combustible vapors. Do not cut, puncture or weld near these containers. Label warnings must be observed until containers have been commercially cleaned or reconditioned. Containers to be thrown out must be disposed of in accordance with federal, state and local regulations. Use only licensed hazardous waste disposal companies if required.

MAINTENANCE:

For optimal floor appearance and performance following installation, refer to VSC's Floor Maintenance Instructions.

CUSTOMER NOTE:

For information on application situations not covered above, contact your VSC representative.

WARRANTY STATEMENT

Information about VSC products is given to the best of our knowledge, based on tests and experience. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you will make your own tests to determine the suitability of the product for your particular purpose. As products are often applied or used under conditions beyond our control, VSC cannot guarantee anything but the quality of its products. VSC warrants that its products meet the specifications set forth by VSC, but we reserve the right to change any given specification without prior notice. VSC DISCLAIMS ALL WARRANTIES RELATING TO THE PRODUCTS AND THEIR APPLICATION, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Receipt of VSC products constitutes acceptance of the terms of this limited warranty and the terms and the conditions set out in our invoice, contrary provisions of buyer's purchase documents not withstanding. Upon receipt of merchandise, purchaser has 30 days to notify VSC in writing that materials are defective. In the event VSC finds that the product delivered is off specification, VSC will, at its sole discretion, either replace the product or refund the purchase price thereof, and VSC's choice of one of these remedies is the buyer's sole remedy. In no event shall the liability of VSC exceed the purchase price of shipped merchandise. Claims must be in writing. Claims after 30 days are void. VSC will under no circumstances be liable for special, incidental or consequential damages. This warranty supercedes all other guarantees, whether oral or written, and whether expressed, implied or statutory. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Certain products may contain chemicals which may cause serious physical injury. Before using, please read the Material Safety Data Sheet and follow all precautions to prevent bodily harm.



VANBERG SPECIALIZED COATINGS
PO BOX 19414
LENEXA, KS 66285-9414

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