**PROFESSIONAL COATINGS**

**PRODUCT DESCRIPTION:**

ARMORCOAT is a 100% solids, 2-component, epoxy coating designed for durability, longevity, and resistance to yellowing. ARMORCOAT meets all of the USDA guidelines for use in federally inspected facilities. ARMORCOAT is available in clear, medium gray and a selection of colors using VSC colorants.

**RECOMMENDED USES:**

ARMORCOAT is recommended as a high performance coating in areas that are subjected to medium to heavy traffic and moderate chemical spillage. ARMORCOAT is also the recommended binder resin for VSC’s solid color and multi-colored epoxy flooring systems.

**FEATURES:**

## 100% Solids

* **Cleans Easily**
* **Solvent Free - Odorless**
* **Easy Mixing Ratio**
* **12 Standard Colors**
* **Gloss Finish**
* **Can Be Made Anti-Slip**
* **Zero VOC’s**
* Moderate Chemical Resistance
* Good Abrasion Resistance
* Single or Multiple Coat Application
* No Induction Time
* Water Clear

**PACKAGING:**

* 1.5 gallon unit (5.6L) #82414
* 15 gallon unit (56.8L) packaged in three proportioned 5 gallon (18.9L) pails #82414-15

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| **GENERAL PRODUCT DATA** | |
| **FEATURE** | **ADVANTAGE** |
| SHELF LIFE | 2 years (between 50°F and 85°F)(10°C and 29°C) |
| **APPLICATION TEMP & HUMIDITY** | 55°F to 85°F (13°C to 29°C) @ less than 75% R.H. |
| **MIXING RATIO (HARDENER TO RESIN)** | Gray: 1 to 2 by volume, 1 to 2.4 by weight  Clear: 1 to 2 by volume |
| **COVERAGE** | 150 sq. ft. per gallon (3.68m2 /L) |
| **WORKING TIME** | Clear & Gray: 5 -10 minutes @ 75°F (24°C) |
| **APPLICATION METHOD** | Straight Squeegee & 3/8” (.95 cm) nap Roller |
| **READY FOR RECOAT** | 3 – 4 hours @ 75°F (24°C) (1-2 hrs. with VSC CATALYST) |
| **READY FOR FOOT TRAFFIC** | 6 hours @ 75°F (24°C) |
| **READY FOR HEAVY TRAFFIC** | 24+ hours @ 75°F (24°C) |
| **BOND STRENGTH** | 425+ psi (2758 kPa) w/ concrete failure (ASTM D-4541) |
| **% SOLIDS BY VOLUME** | 100% (ASTM D-1464) |
| **FLASH POINT** | >200°F (93°C) (PMCC) |
| **UV LIGHT RESISTANCE** | Good (QUV) |
| **HARDNESS (SHORE D)** | 75 - 80 (ASTM D-2240) |
| **VOC** | 0 g/l (EPA Method 24) |
| **GLOSS (60°)** | 85 – 100 |
| **IMPACT RESISTANCE** | >160 in-lbs (18.08 N.m) (ASTM D-4226) |
| **INDENTATION** | None (MIL-D-3134F) |
| **ABRASION RESISTANCE** | 0.06 g (ASTM D-4060, CS-17 wheel) |
| **FLAMMABILITY** | Self-Extinguishing (ASTM D-635) |
| **HEAT RESISTANCE LIMITATION** | 140°F (60°C ) Constant  200°F (93°C) Intermittent |
| **WATER ABSORPTION** | 0.2% (ASTM C-413) |
| **COEFFICIENT OF FRICTION** | 0.72 (ASTM F-609) |
| **VISCOSITY (MIXED)** | 500 +/- cps |

## COVERAGE:

This product should be applied at the rate of approximately 150 sq. ft. per gallon (3.68m2/ L), which is approximately 11 mils (0.28mm). 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. For ARMOR-ROCK and ARMOR-SLATE systems add 25-30 lbs. of selected VSC aggregate to each 1.5 gal. mix. See VSC SYSTEM APPLICATION GUIDES for details.

## 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 use.
* New concrete must cure for at least 30 days @ 70°F (21°C).
* DO NOT thin EPOXY.
* DO NOT use when humidity exceeds 75% indoors.
* DO NOT allow material to puddle during application.
* 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.
* Prime bare concrete with a suitable VSC primer.
* Apply a test patch to ensure adhesion.

## PRIMING:

For optimum results, prime the prepared concrete floor first with a recommended VSC primer.

Allow the VSC primer to dry thoroughly before mixing and applying the next coating. The primed floor should be tack free.

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 55°F (10°C ) or above 85°F (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. VSC EPOXY CATALYST can be mixed into the epoxy to hasten cure (see Data Sheet).

## POT LIFE:

At 75°F (23.9°C) and 50% R.H., this epoxy has a useful pot life of approximately 10-15 minutes. 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 ½” (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 beforemixing 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.