

# Vanberg Specialized Coatings

## Armor-Stone Epoxy Mortar Overlay Data Sheet



### PROFESSIONAL COATINGS

#### PRODUCT DESCRIPTION:

**ARMOR-STONE EPOXY MORTAR** is a heavy duty industrial floor overlay. It is used areas exposed to severe physical and chemical abuse. This epoxy mortar overlay is well proven to be the most durable over time. It has superior impact and wear resistance.

#### RECOMMENDED USAGE:

Recommended for heavy manufacturing, vehicle service bay floors, agricultural facilities and food processing. A variety VSC topcoats are available to fit virtually any need.

#### PACKAGING INFORMATION:

**.5-gallon kit of ARMOR-STONE** Epoxy Liquids (accepts color additives)

**25-gallon kit** (makes 50 .5-gallon units)

#### Aggregate Options:

35 lb. Bag of ES NATURAL aggregate admix

35 lb. Bag of G-DIAMOND aggregate admix

#### COVERAGE:

**Primer** – 75 sq. ft. per .5 gallon of **ARMOR-STONE**

**Batch Mix** – 18 sq. ft. @ ¼ inch of .5 gal **ARMOR-STONE** and 35 lbs. selected aggregate

**Topcoat** – Optional Systems available

#### CURE SCHEDULE:

Pot life (1 1/2 gallon volume) 20 minutes @ 75° F

Recoat or topcoat 4 - 5 hours @ 75° F

Light foot traffic 6 - 8 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, but has very good resistance to color change for an epoxy product. Therefore, a topcoat is optional.
- Substrate temperature must be 5° F above dew point.
- All new concrete must be cured for at least 30 days prior to application.
- Apply a suitable primer before using this product.
- See reverse side for application instructions.
- Physical properties are typical values and not specifications.
- See reverse side for limitations of our liability and warranty.
- See chemical resistance guide

#### GENERAL PRODUCT DATA

FEATURE	ADVANTAGE
<b>MIX RATIO</b>	1 part Hardener to 4 parts Resin by volume
<b>RECOMMENDED OVERLAY THICKNESS</b>	1/8 <sup>th</sup> to 5/8 <sup>th</sup> inches
<b>APPLICATION TEMPERATURE</b>	60°-90° F with relative humidity below 85% for best results. Substrate temperature above 50°
<b>COLORS AVAILABLE</b>	Clear (natural) and 12 Color Options
<b>PRIMER</b>	ARMOR-STONE
<b>TOPCOAT OPTIONS</b>	ARMORCOAT, ARMOR-ROCK, ARMOR-SLATE, ARMOR-GRIT, TEXTURE COAT
<b>SOLIDS BY WEIGHT</b>	100% (+/- 1%)
<b>SOLIDS BY VOLUME</b>	100% (+/- 1%)
<b>FLAMMABILITY</b>	ASTM E-648 Self Extinguishing
<b>FLEXURAL STRENGTH</b>	8,000 psi @ ASTM D-790
<b>COMPRESSIVE STRENGTH</b>	11,000 psi @ ASTM D-695
<b>TENSILE STRENGTH</b>	8,500 psi @ ASTM D-638
<b>HEAT RESISTANCE</b>	160° F (immersion) 185° F (dry heat)
<b>ABRASION RESISTANCE</b>	ASTM C-501(CS-17 wheel with 1000 gram total load and 1000 cycles) = 35 – 40 mg loss
<b>IMPACT RESISTANCE</b>	Withstands 16ft./lbs. no cracking, delamination or chipping MIL- D-3134F § 4.7.3
<b>HARDNESS</b>	ASTM D-2240 Shore D =
<b>VOLATILE ORGANIC CONTENT</b>	Nearly zero pounds per gallon.
<b>DOT CLASSIFICATION</b>	Part A "not regulated" Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII"
<b>SHELF LIFE</b>	1 year in unopened containers

**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 (**VSC CONCRETE CLEAN & ETCH**). Repair cracks and joints with VSC's 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 @ 70F.
- 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.

**PRIMING:**

Thoroughly mix, then squeegee and roll coat apply **ARMOR-STONE EPOXY** at the rate of 75 sq. ft. per .5 gallon unit. The **ARMOR-STONE MORTAR** mix is applied over wet and tacky primer.

**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). Also avoid application if the humidity is higher than 85% 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 container. DO NOT change the ratio of Hardener to Resin. Blend thoroughly for 2 minutes with a spiral-mixing blade (PROP MIXER #TS46565) attached to a low-speed (400-600 RPM) 1/2 inch electric drill. Take care not to induce air into the material during mixing. Pour the mixed liquids into a 5-gallon pail mixer (#TSKM5825). Pour in 35 lbs. of selected aggregate and mix thoroughly in the pail mixer.

**For bulk 25 units:** Portion out 13 fl. Oz. Hardener and 52 fl. Oz. Resin into a clean pail. Mix thoroughly as stated above. **Colorants: VSC COLORANTS** can be added at the rate of 8 fl. Oz. per batch. **VSC EPOXY CATALYST (KICKER PACK)** can be mixed into the batch to hasten cure at the rate of 2 fl. Oz.

**POT LIFE:**

At 75 F (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 placing the mortar over the surface using a screed box or gage rake. Spread the mortar at the decided upon coverage rate. Immediately follow with hand trowel (#TST1MT & #TSTC6C) or power trowel. The individual(s) applying the epoxy should be wearing "spiked sandals (#TS46106)". Allow the mortar to cure thoroughly before mixing and applying the next coat (if used). It should be tack-free before recoating.

**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 notwithstanding. 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.



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