



## VEMATTE REINFORCED SYSTEM NO. 470

	VEPrime No. 550	VEMatte No. 470	Saturant No. 471	VEGlaze No. 472
<b>PHYSICAL PROPERTIES</b>				
Application time				
Working time at 70°F	30 minutes	30 minutes		30 minutes
Initial set at 70°F	2 hours	2 hours		2 hours
Components	2 part	3 part	2 part	2 part
Thickness	5-10 mils (0.024mm)	1/16" (63 mils)	15 mils	10 mils
Bond strength to concrete (ASTM C-478)	Concrete failure	Concrete failure	Concrete failure	Concrete failure
Maximum service temperature		250°F (121°C)	250°F (121°C)	250°F (121°C)

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data are subject to reasonable deviation.

Sauereisen VEMatte Reinforced System No. 470 is a multiple layer, 120 mil, fiberglass reinforced lining for chemical-resistant construction of sumps, dikes, containment areas, trenches, walls, and floors. This series of novolak vinyl ester linings offers superior resistance to most inorganic acids, caustics, oxidizing solutions, solvents, and bleaches up to 250°F.

The VEMatte system includes VEPrime No. 550, VEMatte basecoat and topcoat No. 470, fiberglass reinforcement and Saturant No. 471. A topping of VEGlaze No. 472 is used for aesthetics and ease of cleaning, if required. The Sauereisen VEMatte System is available in a modified vinyl ester formulation as the No. 420 Series.

### AREA PREPARATION

#### Temperature of Working Area

Maintain a temperature of 60°-85°F on air, substrate, Powder, Liquid, and Hardener components during mixing, application, and cure. The monolithic components and substrate should be maintained at 65°F to 85°F for 48 hours prior to beginning work.

At temperatures below 60°F, the application becomes more difficult and curing is retarded.

Above 85°F, the material working time decreases. It is recommended that the material components be stored in a cooler area prior to mixing. Shading the sub

strate and using ice water to cool mixing equipment is not uncommon. In extreme temperatures, it may be necessary to postpone the application or to apply during cooler hours.

### CHARACTERISTICS

- Resistant to most solvents, oils, acids and acid salts (except hydrofluoric) over a pH range of 0.0 to 14.0.
- Maximum service temperature of 250°F (121°C).
- Superior tensile/flexural strengths.
- Fast chemical set; less down time.
- Low porosity.

#### Surface Preparation

Surfaces should be made free of oil, grease, water, and other contaminants that may inhibit bond. This can be achieved by chemical cleaning.

*Metal* - Abrasive blast to a nominal 2.5 mil profile employing SSPC-SP10 Near White Metal Blast for immersion and SSPC-SP6 Commercial Blast for other service conditions. All welds must be continuous, free of flux and have a smooth rounded radius without any sharp edges.

*Concrete* - Concrete must be dry, firm, have attained 3000 psi compressive strength or be structurally sound as specified by the architect/engineer. Concrete should be floated free of ridges or depressions; all structural cracks must be repaired; voids filled, and slopes reestablished.

Abrasive blast or high-pressure water blast to remove laitance and obtain uniform sound substrate.

If chemical cleaning is utilized to remove contaminants, substrate must be neutralized. If abrasive or high-pressure water blasting is used as the method of surface preparation, all sand and/or debris must be removed by thoroughly vacuuming the area with an industrial vacuum cleaner. If surface does not have desired profile, repeat surface preparation procedure.

### APPLICATION

#### Mixing

With each component of the mat reinforced system; remix contents of Resin Part B component for a minimum of 2 minutes with a slow speed paddle or "Jiffy" mixer. Add Hardener to resin and mix for a minimum of 2 minutes until thoroughly blended. For basecoat, mix resin and hardener for one minute. Gradually add powder while mixing continuously for 3 minutes.

Mix only complete batches. Material which has begun to set must be discarded. Do not try to retemper the material.

#### Installation

The VEMatte reinforced system is installed in five steps: Primer, VEMatte basecoat, Reinforcement, Saturant, and VEMatte topcoat. VEGlaze can be added as a smooth topping when desired. Installation steps are as follows:

### Step one

Apply VEPrime No. 550 by roller to a thickness of 5-8 mils using a short nap roller with a non-degradable core. Allow primer to become tack-free for a minimum of six hours at 70°F before proceeding.

### Step two

After mixing, trowel the VEMatte basecoat No. 470 to 1/16" (approx. 104 ft<sup>2</sup> per unit) over the Primer.

### Step three

Immediately press woven fiberglass mat reinforcement into VEMatte No. 470. Apply fiberglass cloth in a uniform manner. Be careful not to wrinkle or intertwine material. Use 2" overlaps on the adjacent strips of cloth. Smooth mat reinforcement with a short nap mohair roller to eliminate air entrapment or pinholes.

### Step four

After mixing, apply Saturant No. 471 by brush, roller, or spray until fiberglass becomes translucent (approx. 105 ft<sup>2</sup> per unit). Allow installation to cure a minimum of 8 hours at 70°F before proceeding.

### Step five

After Saturant No. 471 has cured, trowel another 1/16 inch thickness of VEMatte topcoat No. 470 onto the surface of applied system. Use a short nap mohair roller lightly moistened with acetone or MEK to provide a pinhole-free finish, eliminate voids, and remove trowel marks. Allow to cure at least 48 hours at 70°F prior to chemical exposure.

### Step six (optional)

For applications where aesthetics or ease of cleaning is required, a topcoat of VEGlaze No. 472 can be applied. Contact Sauereisen for recommendations.

## COVERAGE

#### Primer No. 550

225 ft<sup>2</sup> per unit at 6 mils thick.

#### VEMatte Basecoat/Topcoat No. 470

104 ft<sup>2</sup> per unit at 1/16 inch thick.

#### Saturant No. 471

105 ft<sup>2</sup> per unit.

#### VEGlaze No. 472, when specified

320 ft<sup>2</sup> per unit at 5 mils thick.

\*Coverages are theoretical and will vary depending upon surface conditions, porosity, application techniques and project specific conditions.

## SETTING/CURING

VEMatte Reinforced System will take an initial set in 2 hours at 70°F. Do not allow water or chemicals on the material surface for a minimum of 48 hours. For temperatures below 70°F, cure a minimum of 72 hours prior to water or chemical exposure.

## PACKAGING

#### Primer No. 550

##### One gal. unit. (Approx. 10 lbs.)

Liquid	1 - 1 gal. can
Hardener	1 - 4 oz. bottle

#### VEMatte Basecoat/Topcoat No. 470

##### (Unit weight approx. 62 pounds)

Liquid	12.5 lbs. in a 2-1/2 gallon metal pail
Hardener	1 - 4 oz. bottle (.25 pounds)
Powder	1 - 50lb. bag

#### Saturant No. 471

Liquid	1 - 1 gal. can
Hardener	1 - 2 oz. bottle

#### VEGlaze No. 472

##### One gal. unit. (Approx. 10 lbs.)

Liquid	1 - 1 gal. can
Hardener	1 - 2 oz. bottle

##### 3 gal. unit. (Approx. 30 lbs.)

Liquid	1 - 1 gal. can
Hardener	1 - 2 oz. bottle

#### Fiberglass Reinforcement

This component is typically sourced locally by the applicator/contractor per project requirements.

## CLEAN-UP

All equipment should be cleaned by scrubbing with a stiff brush and acetone or MEK at the end of each working period or when build-up becomes pronounced.

## SHELF LIFE

Sauereisen VEMatte Reinforced System has a shelf life of three (3) months, when stored in unopened, tightly sealed containers in a dry location at 70°F. Avoid freezing. If there is a doubt as to the quality of the materials, consult a Sauereisen representative.

## CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for hazards in handling these materials.

## WARRANTY

We warrant that our goods will conform to the description contained in the order, and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using Sauereisen cements and compounds for a similar application. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of nonconforming goods at our factory or, at our sole option, to repayment of the purchase price of nonconforming goods.

**Distributors and agents in major cities throughout the world. Consult manufacturer for locations.**

**Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.**

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