

## STONGLAZE® VSF

### PRODUCT DESCRIPTION

Stonglaze VSF is a decorative wall system incorporating flakes in a high performance clear topcoat for use in commercial and industrial applications. It is an excellent decorative option that breaks away from the traditional "painted wall" look.

### USES, APPLICATIONS

Stonglaze VSF can be used anywhere high performance, polymer wall systems are applied. As a design option, Stonglaze VSF is an excellent alternative to paint, tile or wall paper. Some typical applications include:

- Medical facilities/patient rooms, OR suites
- Educational facilities/classrooms, corridors
- Pharmaceutical facilities
- Food processing facilities
- Transportation hubs

### OPTIONS

#### *Antimicrobial*

Stonplus AM9 is an antimicrobial, organic thione compound that acts as a permanent bacteriostat and fungistat against a broad range of gram-positive and gram-negative bacteria and fungi. Stonplus AM9 is EPA registered and contains no heavy metals.

#### *Stonglaze VSE Basecoat*

Provides waterproofing or crack bridging characteristics

#### *Stonseal CA7*

Increased UV protection and improved stain resistance

### PRODUCT ADVANTAGES

- High performance polymer finish that is aesthetically pleasing and easy to clean.
- Long-term abrasion and chemical resistance.
- Stain resistant.
- Excellent bond strength assures good adhesion to concrete, steel, drywall and masonry surfaces.
- Easily applied.
- Available in standard and custom colors.

### PACKAGING

Stonglaze VSF is packaged in units for easy handling. Each unit consists of:

#### *Stonglaze E4*

- 1 carton containing:
  - 2 foil bags of Amine
  - (2) 1 gallon cans of Resin

### PHYSICAL CHARACTERISTICS

Pot Life	.20 to 25 minutes @ 70°F/21°C
Minimum Dry Film Thickness	.60 mil/ 1.5 mm
Cure Rate (@ 77°F/25°C)	.8 hours for tack-free surface 24 hours minimum for normal operations
Temperature Limitations	140°F/60°C (continuous exposure) 200°F/93°C (intermittent exposure)
V.O.C. (ASTM D-2369)	Stonglaze E4 - 39 g/l Stonglaze VSF Topcoat - 40 g/l

**Note:** The above physical properties were measured in accordance with the referenced standards. Samples of the actual wall system, including binder and filler, were used as test specimens.

#### *Stontec Flakes*

1 carton of colored flakes (1/16 in./1.5 mm, small)

#### *Stonglaze VSF Topcoat*

1 carton containing  
6 foil bags of Amine  
6 poly bags of Resin

### COVERAGE

Each unit of Stonglaze VSF will cover approximately 400 sq. ft./37.16 sq. m at 60 mil/1.5 mm (DFT) over relatively smooth surfaces.

### STORAGE CONDITIONS

Store all components of Stonglaze VSF at or above 65°F/18°C in a dry area. Avoid excessive heat. Do not freeze. The shelf life is 3 years in the original unopened containers.

### COLOR

Stonglaze VSF is available in 10 dynamic colors. Refer to the Wall Systems Brochure for options. Custom colors are available upon request.

### SUBSTRATES/PREPARATION

When used in conjunction with its appropriate primer, Stonglaze

VSF is suitable for use over wall board, wood, metal and concrete substrates. These substrates must be clean, dry, and free of any laitance or unbonded materials.

Any wall board surface must be finished to a level 1,2, or 3 drywall finish with an appropriate spackle compound (green board and cement board will require water resistant drywall compound or setting compound). **To ensure excellent, long term performance, it is critical that Stonglaze VSF is never installed over a level 4 or 5 drywall finish.**

Concrete block walls (CMU) must be given sufficient time for the mortar to fully cure. Excess mortar and any residual laitance or debris must be removed by mechanical means prior to installing Stonglaze VSF.

Formed or poured concrete walls must be prepared by mechanical means to remove any laitance or efflorescence and provide a sandpaper texture suitable for bonding.

Previously painted substrates must be inspected to determine the level of drywall finish (for wall boards) and the type of paint. Stonglaze VSF will bond well to prepared epoxy paints, but will not bond to latex, oil, urethane, or acrylic paints. If upon inspection, a level 4 or 5 drywall finish, or one of the previously mentioned paints is found, it must be removed by mechanical means prior to application of the Stonglaze system.

## PRIMING

Priming for wall board applications, including sheetrock, green board, and paperless drywall, Primer 180 should be used to ensure proper adhesion and serve as a sealer coat between the Stonglaze coating and the substrate. The coverage for Primer 180 will be approximately 400 sq. ft./37.16 sq. m per unit over any of the wall boards mentioned. For concrete and concrete masonry unit (CMU) walls, Stonglaze E4 should be used as a primer. The coverage for Stonglaze E4 will fall between 250 to 400 sq.ft/23.23 to 37.16 sq. m per unit depending on the condition and porosity of the substrate.

## APPLYING

The application of the Stonglaze E4 begins immediately after mixing. This material should be applied to the wall by the dip and roll method at a thickness of 8 to 10 mils/203 to 254 microns wft. Once the material is applied at the proper thickness, it should be finish rolled to achieve a uniform appearance. Within 10 minutes of finish rolling, the flake must be broadcast into the wet base material.

The Stontec Flake is broadcast using a VSF Gun or similar apparatus. Broadcast until the wall surface appears uniform. Allow to cure for 6 to 8 hours minimum.

For the urethane option follow the same application as above using Stonglaze VSE Basecoat.

Once the wall is cured, it is scraped to remove loose flakes and minimize texture. Sweep off the entire wall surface to remove dust or remaining flakes chips.

Then, Stonglaze VSF Topcoat is applied immediately after mixing. This material should be dip and rolled and finish rolled. The

Stonglaze VSF Topcoat thickness is 6 to 8 mils/150 to 200 microns wft.

## CURING

The surface of Stonglaze VSF will be tack-free in 8 hours at 77°F/25°C. The coated area may be put into service in 24 hours. Ultimate physical characteristics will be achieved in 7 days.

## PRECAUTIONS

- Do not use water or steam in the vicinity of the application. The relative humidity in the area should be less than 80%. Moisture can seriously affect the working time and properties of the material, including gloss level.
- Application time (20 min.) and curing time (8 hrs.) are dependent upon ambient and surface conditions.
- The use of safety glasses and impervious gloves are required.
- The use of NIOSH/MSHA approved respirators with organic vapor/acid gas cartridges is required when spray applying this product.
- In case of contact, flush the area with copious amounts of water for 15 minutes and seek medical attention. Wash skin with soap and water.
- Use only with adequate ventilation.
- Material, air and substrate temperatures should be 60 to 85°F/16 to 30°C during installation.

## NOTES

- Procedures for maintenance of the flooring system during operations are described in the Stonkleen Floor Cleaning Procedures Brochure.
- For environments not referenced in the Chemical Resistance Guide, consult Stonhard for recommendations.
- Safety Data Sheets for Stonglaze VSF are available on line at [www.stonhard.com](http://www.stonhard.com) under Products or upon request.
- A staff of technical service engineers is available to assist with product application or to answer any questions related to Stonhard products.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high gloss coatings are subject to a reduction in gloss, while matte finish coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surfaces should be cleaned regularly and deep cleaned periodically to ensure no contaminant buildup occurs. Surfaces should be periodically inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.

## CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of Stonglaze VSF when exposed to the damaging effects of corrosive chemical environments.

## RATING CODE

E - Excellent  
 G - Good  
 NR - Not Recommended  
 OS - Suitable for use where "occasional spillages" occur; when flushing with water immediately follows.

### ACIDS

RATING	RATING
Acetic – 5% . . . . . G	Maleic – up to 10% . . . . . G
Acetic – 10% . . . . . G	Maleic – Sat. . . . . NR
Acetic – 15% . . . . . G	Nitric – 10%* . . . . . E
Acetic – 20% . . . . . OS	Nitric – 20%* . . . . . G
Acetic – Glacial . . . . . NR	Nitric – 30%* . . . . . OS
Benzoic – Sat. . . . . E	Nitric – over 40%* . . . . . NR
Boric – 3% . . . . . E	Oleic . . . . . E
Chromic – 10%* . . . . . G	Oxalic – 10% . . . . . E
Chromic – 40%* . . . . . NR	Oxalic – Sat. . . . . E
Citric – Sat. . . . . E	Perchloric – 35% . . . . . OS
Fatty . . . . . G	Phosphoric – 10% . . . . . G
Formic – 10% . . . . . G	Phosphoric – 20% . . . . . G
Hydrochloric – 10% . . . . . E	Phosphoric – 40%* . . . . . OS
Hydrochloric – 20% . . . . . E	Phosphoric – Conc. 85%* . . . . . NR
Hydrochloric – Conc. * . . . . . G	Pitric – Sat. . . . . E
Hydrofluoric – 5% . . . . . G	Succinic – Sat. . . . . E
Hydrofluoric – 10% . . . . . OS	Sulfuric – 10% . . . . . E
Hydrofluoric – 15% . . . . . OS	Sulfuric – 25% . . . . . E
Lactic – 5% . . . . . G	Sulfuric – 50%* . . . . . G
Lactic – 10% . . . . . G	Sulfuric – 80% . . . . . NR
Lactic – 20% . . . . . OS	Tannic – Sat. . . . . E
Lactic – over 20% . . . . . OS	Tartartic – Sat. . . . . E

### ALKALIES AND SALTS

Stonglaze VSF is rated *Good* to *Excellent* when exposed to most commonly known alkalies and salts.

### SOLVENTS AND OTHER CHEMICALS

RATING	RATING
Acetone . . . . . OS	Ethylene Glycol . . . . . E
Acrylonitrile . . . . . OS	Ether . . . . . OS
Aniline . . . . . NR	Formaldehyde – 40% . . . . . E
Alcohol (Methyl) . . . . . OS	Gasoline . . . . . E
Alcohol (Ethyl, Propyl, Isopropyl) . . . . . G	Glycerine . . . . . E
Amyl Acetate . . . . . G	Heptane . . . . . E
Animal Fats . . . . . G	Hexane . . . . . E
Antifreeze . . . . . E	Hydrogen Peroxide – 10% . . . . . E
Beer . . . . . E	Hydrogen Peroxide – 30% . . . . . OS
Benzene . . . . . OS	Jet Fuel . . . . . E
Bleach . . . . . E	Juices – Fruit* . . . . . E
Blood . . . . . E	Juices – Vegetable . . . . . E
Bromine . . . . . NR	Kerosene . . . . . G
Butyl Acetate . . . . . G	Lard . . . . . G
Butyl Alcohol . . . . . G	Linseed Oil . . . . . E
Carbon Tetrachloride . . . . . G	Mayonnaise . . . . . G
Corn Oil . . . . . E	Methyl Ethyl Ketone . . . . . NR
Crude Oil . . . . . E	Methyl Isobutyl Ketone . . . . . NR
Cyclohexane . . . . . E	Methylene Chloride . . . . . NR
Chloroform . . . . . NR	Milk . . . . . E
Ethyl Acetate . . . . . OS	Mineral Spirits . . . . . E

*SOLVENTS AND OTHER CHEMICALS ...continued*

Mustard* . . . . .	E	Soap Solution . . . . .	E
n-Propyl Alcohol . . . . .	G	Styrene . . . . .	G
n-Propyl Acetate . . . . .	OS	Sucrose – Sat. (Sugar) . . . . .	E
Oils – Castor . . . . .	E	Toluene . . . . .	G
Oils – Crude . . . . .	E	Trichloroethane . . . . .	G
Oils – Cutting . . . . .	E	Trichloroethylene . . . . .	OS
Oils – Diesel . . . . .	E	Urea . . . . .	E
Oils – Mineral . . . . .	E	Vinegar (Household) . . . . .	G
Oils – Vegetable . . . . .	G	Water . . . . .	E
Peanut Butter . . . . .	E	Whiskey . . . . .	G
Phenol – 5% . . . . .	NR	Wine* . . . . .	E
Silicone Solution . . . . .	E	Xylene . . . . .	G

**Note:** This data is based on laboratory tests performed under carefully controlled conditions. (All solutions are at ambient temperatures.) No warranty can be expressed or implied regarding the accuracy of this information as it will apply to actual plant operation or job site use. Plant operations and job site uses vary widely, and the individual results obtained are affected by the specific conditions encountered, which are beyond our control.

**IMPORTANT:**

Stonhard believes the information contained here to be true and accurate as of the date of publication. Stonhard makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

Rev. 11/15  
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