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 wallpaper. Some typical applications include:

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

OPTIONS

Antimicrobial

Stonplus PROTECT is an antimicrobial, organic thione compound that acts as a long-lasting bacteriostat and fungistat to protect the wall against a broad range of gram-positive and gram-negative bacteria and fungi.

Stonplus PROTECT 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

PHYSICAL CHARACTERISTICS

Pot Life	20 to 25 minutes @ 70˚F/21˚C
Minimum Dry Film Thickness	60 mil/ 1.5 mm
Cure Rate	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) Stonkote CE4 – 34 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.

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

Stontec Flakes

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

Stonkote CE4

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 wallboard, wood, metal, and concrete substrates. These substrates must be clean, dry, and free of any laitance or unbonded materials. The standard build of Stonglaze VSF is not suitable for use over abuse board or Durock. Utilize the urethane version if installing over abuse board or Durock.

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
When 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 6 to 8 mils/152 to 203 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. The Basecoat should be applied at 10 to 12 mils/254 to 305 microns wft. Once the wall is cured, it is scraped or sanded to remove loose flakes and minimize texture. You can also use an 80-mesh screen to run across the flakes by hand to knock down and smooth out the flake. Sweep off the entire wall surface to remove dust or remaining flakes chips.

Next, Stonkote CE4 is applied immediately after mixing. This material should be dip and rolled and finish rolled. The Stonkote CE4 thickness is 6 to 8 mils/152 to 203 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
- Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- 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.
- Material, air, and substrate temperatures should be 60 to 85˚F/16 to 30˚C during installation.
- The use of NIOSH-approved respirators using an organic vapor/acid gas cartridge is required when spraying this material.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles or safety glasses and impermeable gloves are required.
- If eye contact occurs, flush area with water for 15 minutes and seek medical attention. Wash skin with soap and water.
- If material is ingested, immediately contact a physician. DO NOT INDUCE VOMITING.
- Use only with adequate ventilation. Inhalation of vapors may cause severe headaches, nausea and possibly unconsciousness.

NOTES

- Procedures for maintenance of the Stonglaze system during operations are described in the Stonkleen Cleaning Procedures Brochure.
- For environments not referenced in the Chemical Resistance Guide, consult Stonhard for recommendations.
- Safety Data Sheets for Stonglaze VSF are available online at 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.

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 – Sat	NR
Acetic – 10%	G	Nitric – 10%*	E
Acetic – 15%	G	Nitric – 20%*	G
Acetic – 20%	OS	Nitric – 30%*	OS
Acetic – Glacial	NR	Nitric – over 40%*	NR
Benzoic – Sat	E	Oleic	E
Boric – 3%	E	Oxalic – 10%	E
Chromic – 10%*	G	Oxalic – Sat	E
Chromic – 40%*	NR	Citric – Sat	E
Fatty	G	Perchloric – 35%	OS
Formic – 10%	G	Phosphoric – 10%	G
Hydrochloric – 10%	E	Phosphoric – 20%	G
Hydrochloric – 20%	E	Phosphoric – 40%*	OS
Hydrochloric – Conc. *	G	Phosphoric – Conc. 85%*	NR
Hydrofluoric – 5%	G	Pitric – Sat	E
Hydrofluoric – 10%	OS	Succinic – Sat	E
Hydrofluoric – 15%	OS	Sulfuric – 10%	E
Lactic – 5%	G	Sulfuric – 25%	E
Lactic – 10%	G	Sulfuric – 50%*	G
Lactic – 20%	OS	Sulfuric – 80%	NR
Lactic – over 20%	OS	Tannic – Sat	E
Maleic – up to 10%	G	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	Bromine	NR
Acrylonitrile	OS	Butyl Acetate	G
Analine	NR	Butyl Alcohol	G
Alcohol (Methyl)	OS	Carbon Tetrachloride	G
Alcohol (Ethyl, Propyl, Isopropyl)	G	Corn Oil	E
Amyl Acetate	G	Crude Oil	E
Animal Fats	G	Cyclohexane	E
Antifreeze	E	Chloroform	NR
Beer	E	Ethyl Acetate	OS
Benzene	OS	Ethylene Glycol	E
Bleach	E	Ether	OS
Blood	E	Formaldehyde – 40%	E

Gasoline	E
Glycerine	E
Heptane	E
Hexane	E
Hydrogen Peroxide – 10%	E
Hydrogen Peroxide – 30%	OS
Jet Fuel	E
Juices – Fruit*	E
Juices – Vegetable	E
Kerosene	G
Lard	G
Linseed Oil	E
Mayonnaise	G
Methyl Ethyl Ketone	NR
Methyl Isobutyl Ketone	NR
Methylene Chloride	NR
Milk	E
Mineral Spirits	E
Mustard*	E
n-Propyl Alcohol	G
n-Propyl Acetate	OS
Oils – Castor	E
Oils – Crude	E
Oils – Cutting	E
Oils – Diesel	E
Oils – Mineral	E
Oils – Vegetable	G
Peanut Butter	E
Phenol – 5%	NR
Silicone Solution	E
Soap Solution	E
Styrene	G
Sucrose – Sat. (Sugar)	E
Toluene	G
Trichloroethane	G
Trichloroethylene	OS
Urea	E
Vinegar (Household)	G
Water	E
Whiskey	G
Wine*	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.

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