STONHARD

STONGLAZE VSI

PRODUCT DATA

PRODUCT DESCRIPTION

Stonglaze VSI is a high performance wall system designed for use on drywall surfaces. This epoxy based system is reinforced with micro-fiberglass additives for enhanced mechanical strength. Stonglaze VSI is a nominal 10 to 12 mil/250 to 300 microns wall system comprised of:

Base Coat

A three-component, high performance, high solids, fiberglass reinforced, epoxy base layer.

Top Coat

A three-component, high performance, high solids fiberglass reinforced, epoxy glaze coating

USES, APPLICATIONS

Stonglaze VSI is a multiple layer wall system designed for use on drywall surfaces to obtain increased durability and resistance to cracking and punctures while providing a smooth, tile-like glaze finish. Stonglaze VSI is ideally suited for industrial and institutional facilities requiring superior durability on vertical surfaces. Some of these applications include:

- Medical facilities
- Educational facilities
- Pharmaceutical facilities
- Food processing facilities

SUBSTRATE

Stonglaze VSI, in conjunction with its appropriate primer, bonds firmly to concrete, masonry block, metal, and drywall surfaces. Drywall surfaces should have seams taped and spackled to a level 3 finish. Stonglaze VSI is not recommended over mastics, painted surfaces, plaster, level 4 or 5 drywall finish, rust, or mill scale. These materials must be removed by mechanical means prior to application of Stonglaze VSI.

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.

PRODUCT ADVANTAGES

- Durable, puncture resistant wall surface
- Long-term abrasion and chemical resistance
- Aesthetically pleasing, easy to clean glaze finish
- Stain resistant
- Excellent bond strength assures good adhesion to drywall, wallboard, etc.
- Available in standard and custom colours

PHYSICAL CHARACTERISTICS

Impact Resistance (ASTM D-2794)	Exceeds 70 in.lbs. (No cracking, crazing, or loss of adhesion)
Pot Life	20 to 25 minutes @ 70°F/21°C
Minimum Dry Film Thickness	10 to 12 mil/250 to 300 microns
Cure Rate (@ 77°F/25°C)	6 to 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
Fire Resistance of Dry Film (ASTM E84)	Class A Flame spread 10 Smoke developed 20
Bond Strength (ASTM D-7234)	>300 psi (100% concrete failure)
Hardness (ASTM D-2240, Shore D)	80 to 85
V.O.C. (ASTM D-2369)	0.6 lbs./gallon 70 grams/liter

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.

PACKAGING

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

Base Coat

1 carton of Stonglaze VSC each containing:

2 foil bags of Stonglaze VSC amine

(2) 1 gallon cans of Stonglaze VSC resin

Top Coat

1 carton of Stonglaze VSC each containing:

2 foil bags of Stonglaze VSC amine

(2) 1 gallon cans of Stonglaze VSC resin

Fiberglass Additive

0.5 carton containing:

8 bags of fiberglass microfiber

COVERAGE

Each unit of Stonglaze VSI will cover approximately 500 sq. ft./46.45 sq. m at a 10-12mil/250-300 microns thickness (DFT) over relatively smooth surfaces.

STORAGE CONDITIONS

Store all components of Stonglaze VSI 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 container.

COLOUR

Stonglaze VSI is available in 6 dynamic colours. Custom colours are available upon request.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond. The existing walls must be free of wax, grease, oils, fats, soil, and loose or foreign materials. Laitance,unbonded cement particles, and existing latex, oil based, and acrylic paints must be removed by mechanical methods, i.e., abrasive blasting or sanding.

Other contaminants can be removed using heavy duty industrial detergent (Stonkleen TD9) and rinsing with clean water. The surface must show open pores throughout and have a sandpaper texture. For additional information contact Stonhard's Technical Service Department.

PRIMING

Stonglaze VSC thinned with 3 to 5% acetone should be used as the primer to ensure proper adhesion and serve as a sealer coat between the Stonglaze coating and the substrate. This will prevent the basecoat from soaking into the wall material, ensure proper bond and reduce the amount of Stonglaze VSI needed to complete the job. Allow the primer to cure overnight or for a minimum of 8 to 12 hours and then sand the surface with 60-80-grit sandpaper on a pole or orbital sander.

> **Note:** Rough or porous substrates such as CMU Block or cement wallboard may require an additional coat of primer if significant pin holing is present after the initial primer coat. Durrock™ brand wallboard always requires at least one additional coat of primer.

MIXING

The components of Stonglaze VSI are mixed just prior to use and must be applied immediately. Mixing is accomplished as follows:

1. Using a heavy-duty, slow speed drill (400 to 600 rpm) with a mixing paddle or a Jiffy mixer, pre-mix the Part B material to assure the suspension of solids.
2. Slowly add one bag of fiberglass additive and mix for 60 seconds until well blended.
3. Pour the contents of Part B into a 5 gallon/18.93 liter bucket or appropriate mixing container.
4. Add Part A and continue to mix thoroughly to a uniform consistency for 2 minutes. While mixing, scrape the sides of the bucket to ensure that the Part B is being mixed completely with the Part A.

> **Note:** Avoid high-speed mixing that will entrain air bubbles.

APPLYING

The application of Stonglaze VSI, which begins immediately after mixing, may be accomplished using a high quality medium nap roller.

Application of Stonglaze VSI by roller method should be accomplished in 2 coats of 6 to 8 mil/152 to 203 microns, each to achieve a final thickness of 10 to 12 mil/250 to 300 microns (dft). For a smooth finish sand between coats.

IMMEDIATELY after rolling the each coat, a saturated medium nap roller should be used to to remove roller lines and drips. Finish roll in one direction only, picking the roller up between passes.

> **Note:** Use a heavy nap roller for rough surfaces to ensure uniform coverage. Rough surfaces, such as unprimed concrete block, may reduce your coverage by as much as 100 sq. ft./9.29 sq. m per unit.

CURING

The surface of Stonglaze VSI will be tack-free in 6 to 8 hours at 70˚F/21˚C. The coated area may be put into service in 24 hours. Ultimate physical characteristics will be achieved in seven days.

RECOMMENDATIONS

- Apply on a clean, sound and properly prepared substrate.
- Minimum ambient and surface temperatures are 60˚F/16˚C at the time of application.
- Do not use water or steam in the vicinity of the application. **Moisture can seriously affect the working time and properties of the material.**
- Application and curing times are dependent upon ambient and surface conditions.

PRECAUTIONS

- Application time (20 minutes) and curing time (6 to 8 hours) are dependent upon ambient conditions.
- The use of safety glasses and impervious gloves are recommended.
- 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.
- The use of NIOSH/MSHA approved respirators with organic vapour/acid gas cartridges is required when spray applying this product.
- Material, air and substrate temperatures should be 60 to 85˚F/16 to 30˚C during installation.

NOTES

- For environments not referenced in the Chemical Resistance Guide, consult Stonhard's Technical Service Department for recommendations.
- Material Safety Data Sheets for Stonglaze VSI are available on line at www.stonhard.ca under Tech Info 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.

CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of Stonglaze VSI 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	Hypochlorous - 5%	E
Acetic -20%	OS	Lactic -up to 20%	OS
Acetic - Glacial	NR	Maleic - 30%	G
Benzoic - Sat. 3%	E	Maleic - 40%	OS
Boric - Sat. 30%	E	Maleic - 50%	NR
Butyric -10%	OS	Nitric - 10%	G
Chromic - 10%	G	Nitric - 30%	OS
Chromic - 20%	OS	Oleic	G
Citric - 50%	E	Oxalic - Sat.	E
Cresylic	OS	Perchloric - 35%	OS
Diglycolic	G	Phosphoric -up to 50%	OS
Fatty	G	Picric - Sat.	E
Fluoboric	G	Phthalic	OS
Formic -up to 10%	OS	Succinic - Sat.	E
Heptanoic	OS	Sulfuric - 20%	E
Hydrochloric -15%	G	Sulfuric - 50%	G
Hydrochloric - 37%	OS	Sulfuric - 70%	OS
Hydrofluoric - 5%	G	Tannic - Sat.	G
Hydrofluoric -10%	OS	Tartaric - Sat.	E

ALKALIES AND SALTS

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

SOLVENTS AND OTHER CHEMICALS

	RATING		RATING
Acetone	NR	Methyl Ethyl Ketone	NR
Alcohol (Methyl)	OS	Methylene Chloride	NR
Alcohol (Ethyl, Propyl, Isopropyl, Butyl)	G	Milk	E
Benzene	OS	Mineral Spirits	G
Carbon Tetrachloride	OS	Mustard	G
Corn Oil	E	Naphtha	OS
Cyclohexane	G	Oils - Cutting	G
Diacetone Alcohol	OS	Oils - Mineral	E
Ethylene Glycol	G	Oils - Vegetable	G
Ether	OS	Perchloroethylene	OS
Formaldehyde	G	Skydrol	G
Gasoline	E	Sucrose - Sat. (Sugar)	E
Glycerine	E	Toluene	OS
Hydrogen Peroxide - 10%	G	Trichloroethylene	NR
JP5 Jet Fuel	G	Urea	G
Juices - Fruit	E	Vinegar (Household)	G
Juices - Vegetable	E	Water	E
Lard	G	Wine	E
Linseed Oil	G	Xylene	OS

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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