STONHARD

STONGLAZE VSM

PRODUCT DATA

PRODUCT DESCRIPTION

Stonglaze VSM is a three-component, 100% solids, epoxy wall surfacing material, consisting of liquid resin and curing agent, plus selected aggregates. Combined just prior to use, they form a heavy abrasion and corrosion resistant mortar for use on vertical surfaces.

USES, APPLICATIONS

Stonglaze VSM is specifically designed for general service vertical applications where heavy abrasion and corrosion problems exist. Typical applications for Stonglaze VSM are:

- Walls in heavy industrial areas requiring additional impact, abrasion and corrosion resistance
- Vertical surfaces of concrete curbs and machinery bases
- Patching of deteriorated, cementitious industrial walls
- Walls of drainage trenches
- As a wainscot in industrial areas for added durability

SUBSTRATE

Stonglaze VSM, in conjunction with its appropriate primer, bonds firmly to concrete, metal wood and to itself. Not recommended over mastics, painted surfaces, rust or mill scale. These materials must first be removed by mechanical means prior to application of Stonglaze VSM.

OPTIONAL FINISHES

Stonglaze VSC:	A smooth, tile-like epoxy finish
Stonkote HT4:	A high solids, epoxy coating with increased chemical resistance
Stonkote GS4:	A high solids, general service epoxy coating
Stonglaze VSE:	A tough, waterproof urethane wall system

PRODUCT ADVANTAGES

- Durable mortar trowels to an attractive finish
- Long-term protection against acid and chemical attack. Lightweight; adheres to vertical surfaces without slumping
- Excellent abrasion and impact resistance

PACKAGING

Stonglaze VSM is supplied as a pre-measured unit for easy handling to eliminate on-site proportioning. Each unit consists of:

2 cartons each containing:
- 6 foil bags of Part A (curing agent)
- 6 poly bags of Part B (resin)

12 individual bags of Part C (aggregate)

PHYSICAL CHARACTERISTICS

Compressive Strength . . . . . 9,900 psi after 7 days
(ASTM C-579)
Tensile Strength . . . . . 1,700 psi
(ASTM C-307)
Flexural Strength . . . . . 3,700 psi
(ASTM C-580)
Flexural Models of Elasticity . . . . . 1.0×10^6 psi
(ASTM D-790)
Hardness . . . . . 86 to 90
(ASTM D-2240, Shore D)
Bond Strength . . . . . >400 psi
(ASTM D-4541) . . . . . (100% concrete failure)
Indentation . . . . . no indentation
(MIL-D-3134F)
Flammability . . . . . Self Extinguishing
(ASTM D -635) Extent of burning 0.31 inches max.
Thermal Coefficient of Linear Expansion . . . . . 2.2×10^{-5} in./in.-°C
(ASTM E-831)
Water Absorption 0.056%
(ASTM D-570, 24 hours in H_2O)
Heat Resistance Limitation . . . . . 140°F/60C
in service temperature)
Working Time @ 75°F/24°C . . . . . 25 to 35 minutes
(ASTM C-308)
Initial Set @ 75°F/ 24°C . . . . . 3 1/2 hours
Curing Time . . . . . 8 hours at 77°F/25°C
Impact Resistance . . . . . Exceeds 160 in.-lbs.
(ASTM D-2794) (No cracking, crazing or loss of adhesion)

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

COVERAGE

Each unit of Stonglaze VSM will cover approximately 120 sq. ft./11.14 sq. m at 1/8 in./3 mm thickness.

STORAGE CONDITIONS

Store all components of Stonglaze VSM between 60° to 80°F/18° to 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants may be removed by scrubbing with a heavy duty industrial detergent (Stonkleen DG9) and rinsing with clean water. The surface must show open pores throughout and have a sandpaper texture. For recommendations or additional information regarding substrate preparation, contact Stonhard's Technical Service Department.

PRIMING

Standard Primer must be applied to the prepared surface before installing the Stonglaze VSM. The primer must remain tacky and not set prior to the application.

MIXING

Empty entire contents of one foil bag Part A (liquid) and one poly bag Part B (liquid) into a mixing pail.

Place the mixing pail on a JB Power Blender and activate the timer to start blending.

When the blender stops, reactivate the timer and immediately pour the entire contents of one bag of

Part C aggregate into the rotating pail. Allow the contents to mix for the complete cycle.

When the blender stops, scrape off excess from mixing blade and remove pail, delivering it to the floor area for application.

APPLYING

Application of Stonglaze VSM, which begins immediately after mixing, may be accomplished by either hand-troweling. Spread the Stonglaze VSM evenly over the prepared primed surface using a margin trowel, flexible spatula or steel trowel to build-up low spots. Using a 3 in. x 10 in. or a 3 in. x 7 1/2 in. steel finishing trowel, trowel the Stonglaze VSM to a smooth, dense finish. This finishing must be done as soon as possible, but no more than 30 minutes after spreading.

CURING

Stonglaze VSM will be tack-free in 8 hours at 77˚F/25˚ C, and may be coated at this time. Ultimate physical characteristics will be achieved in 7 days.

RECOMMENDATIONS

- DO NOT attempt to install material if temperature of Stonclad GS components are above 85˚F/30˚C. High temperatures will cause material to harden more quickly than desired.
- DO NOT attempt to install if temperature of Stonclad GS components are below 65˚F/18˚C. Low temperature will cause the material to be stiff and difficult to apply.
- DO NOT use water or steam in the vicinity of the application. Moisture can **seriously** affect the working time and other properties.
- Application equipment must be cleaned immediately after use with scouring pads and warm soapy water or mineral spirits. The use of NIOSH/MSHA approved respirators and safety glasses is recommended.
- Avoid contact with all liquid Parts A and B as they may cause skin and/or eye irritation.
- Workmen should cover hands with rubber gloves.

PRECAUTIONS

- Toluene or Xylene solvents are recommended for clean up of the unreacted Stonglaze VSM material. The reacted materials must be removed by mechanical means. Use these materials only in strict accordance with the manufacturer's recommended safety procedures.
- Dispose of waste materials in accordance with federal, state and local regulations.
- The use of NIOSH/MSHA approved respirators, safety goggles and impervious gloves is 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.
- Use only with adequate ventilation.

NOTES

- Material Safety Data Sheets for Stonglaze VSM are available upon request.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard's products.
- Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located worldwide.

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