SIGMAGLAZE *5492*

November 2006
Revision of November 2004

DESCRIPTION

SigmaGlaze is a brushable/rollable, two component, solvent free, amine-cured epoxy coating suitable for institutional/commercial applications where a very low odor, solvent free, durable, cleanable surface is needed.

PRINCIPAL CHARACTERISTICS

- One coat protection.
- Can be used over properly prepared steel, masonry, cinder block and sheet rock.
- Cleans easily.
- Resistant to chemicals, including cleaning agents.
- Minimize down time.
- Extremely low odor.
- Abrasion resistant and scrub resistant.
- Outstanding coverage.
- No risk of solvent fumes.
- Meets requirements of USDA/FDA for indirect food contact.

COLORS AND GLOSS

White, high gloss finish with appearance of a seamless tile when spray applied.

BASIC DATA AT 68° F (20°C)

Mass density	approximately 11.0 lbs/gal (1.3 kg/ltr)
Solids content	approximately 100%
VOC (by EPA method 24)	0.5 lbs/gal (52 g/ltr)
Recommended dry film thickness	8 – 10 mils (200 – 250 µm) (colors) depending on system 6 – 8 mils (150 – 200 µm) (clear) depending on system
Theoretical spreading rate	1604 ft²/gal at 1 mil (39.3 m²/ltr at 25 µm)
Touch dry after	4 hours
Overcoating interval	minimum 24 hours maximum 20 days.
Full cure after	5 days
Temperature resistance (dry)	250°F (121°C) continuous
Shelf life (cool and dry place)	minimum 12 months
Flash point (T.C.C.)	base: >200°F (>93°C) hardener: >230°F (>110°C)

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Steel; blast cleaned to SSPC-SP6/NACE No.3 (Commercial Blast).
- Previous intact coating – Power tool clean to SSPC-SP3. Spot test for compatibility and adhesion of existing coating required.
- Fresh Concrete: remove laitance and apply an epoxy penetrating sealer
- Fresh Concrete Block: Coat with concrete block filler prior to application of 5492
- Previously Coated Concrete, Block or Masonry: Remove existing paint, dirt, dust or other contamination
- Substrate temperature must be at least 5°F (3°C) above dew point

INSTRUCTIONS FOR USE

At least 24 hours before the coating material will be used, the pails should be placed in an area where the temperature is kept between 68°F and 86°F (20°C - 30°C).
After opening the can with the base component, it is necessary to premix the base until no sediment is left on the bottom of the can. A squirrel cage type mixer such as the Jiffy mixer is recommended. After sufficient premixing, the hardener component can be added to the base and mixed immediately. Stir the base component such that a vortex is created and pour the hardener into the vortex. Continue mixing for about three minutes ensuring that the paint on the bottom and the sides of the can is brought into the mix. If mixing is not done in the correct ratio or not done thoroughly, the product will not achieve full hardness and chemical resistance.

Base and hardener are supplied in the correct ratio: One can of hardener to one can of base. The use of the exact ratio is of prime importance for the hardness and chemical resistance of the cured coating film. Therefore, the hardener container must be emptied completely. Under no circumstances are any thinners to be added to the coating.
At 68°F (20°C) there is approximately one hour working potlife in which the product can be applied before it starts to harden and becomes unusable.

Mixing instructions

Mixing ratio by weight: base to hardener 85 : 15
by volume: base to hardener 79.2 : 20.8

- When mixing, the temperature of base and hardener should be at least 68°F (20°C).
- At lower temperature, the viscosity will be too high for spray application.
- No thinner allowed.

Induction time: None

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Pot life	1 hour at 68°F (20°C)
Relative humidity	95% maximum for general maintenance applications.

AIRLESS SPRAY

Heavy duty single feed airless spray equipment, preferable 60:1 pump ratio and suitable high pressure high pressure hoses should be used. In-line heating or insulated hoses may be necessary to avoid cooling down of paint in hoses at low air temperature. Application with 45:1 airless spray equipment is possible provided in-line heated high pressure hoses are used or if ambient and material temperatures are above 75°F (23°C).

Hose suggestions:
Hoses should normally be kept as short as possible.
Up to 50 ft. length, use hose with minimum 3/8" internal diameter.
For 50 – 100 ft. lengths use hoses with ½" minimum internal diameter.
A short 1/4" whip end section may be used for ease of application.
Best results will be obtained using a 0.0019 – 0.0021 tip. All application equipment must be cleaned immediately after use. All paint inside the spraying equipment must be removed before the potlife time has been expired.

ROLLER	A ½" (12mm) nap synthetic lambs wool roller, e.g. by Linzer or equal, is recommended.
BRUSH	For small areas only.

Note: Other equipment may be suitable, contact the Sigma Technical Service Department for recommendations.

THINNING REQUIREMENTS	Do not thin.
CLEANING SOLVENT	90-83 (Flash point 106°F (41°C))

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SAFETY PRECAUTIONS

This product is offered for sale and use only to PROFESSIONALLY TRAINED INDUSTRIAL PERSONNEL. It is NOT FOR RESIDENTIAL USE. This product contains flammable solvents and/or other hazardous ingredients and must be used with caution. Observe all health and safety precautions as listed on the Material Safety Data Sheet during storage and handling, application, drying and disposal. DO NOT ATTEMPT TO USE THIS PRODUCT WITHOUT CONSULTING THE CURRENT "MATERIAL SAFETY DATA SHEET". Material Safety Data Sheets are available from the Customer Service Department at SigmaKalon USA (713-355-3333)

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate ft²gal (m²/ltr)	267 (6.6 m²)	160 (4.0 m²)
dft in mils (µm)	6 (150 µm)	10 (250 µm)

Although the coating is solvent free, some shrinkage of the film will be observed during the curing. This is due to several reasons including:

- Wet film thickness measurement is inaccurate due to thixotropy of the paint.
- The film shrinks slightly during polymerization of the components.
- Entrained small air bubbles in the wet film increase apparent wet film thickness, but escape before the film sets.
- Some of the reactive materials are slightly volatile and can evaporate at 68° - 86°F (20° - 30°C) before the film sets.

Overcoating table with SigmaGlaze
(Spot repair and stripe coating)

Substrate Temperature	41ºF (5°C)	50ºF (10°C)	68ºF (20°C)	86ºF (30°C)
Minimum Interval	80 hours	36 hours	24 hours	16 hours
Maximum Interval (Free from chalking and contamination)	20 days	20 days	20 days	14 days

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Curing table

Substrate temperature	Dry to handle, rainproof	full Cure
41ºF (5ºC)	60 hours	15 days
50ºF (10ºC)	30 hours	7 days
68ºF (20ºC)	16 hours	5 days
86ºF (30ºC)	10 hours	3 days

Adequate ventilation is required during application and full cure.

Pot life

68ºF (20°C)	90 minutes
86ºF (30°C)	30 minutes

Figures are valid for packages of 1 gallon (4 liters).
The potlife is 1 hour at 68°F (20°C) and will be reduced at higher temperatures. Due to the exothermic reaction, temperature during potlife can increase up to 140°F (60°C) at gel point.

Worldwide availability

While it is the aim of Sigma Coatings to supply the same product on a worldwide basis, slight local modifications can be necessary to comply with legislation or special circumstances. In such situations an alternative product data sheet is published.

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