

# SG MASTIC

## TECHNICAL DATA SHEET



### PRODUCT DESCRIPTION

SG Mastic differentiates itself from all other epoxy systems with its exceptionally low pinhole formation rate (< 1%) and bonding capacity. A 2-component, solvent-free, moisture insensitive epoxy system, SG Mastic's 100% solid, low-odor amine-cured proprietary formula provides exceptional resistance to most organic and inorganic acids. Specifically designed for the protection of sanitary manholes, wet wells, and valve vaults, it cures in the presence of moisture. Formulated to be mixed on site without the need for proprietary equipment, its paste-like viscosity is designed to withstand sagging at thicknesses up to ¼ inch. SG Mastic is recommended for coating horizontal, vertical, and overhead surfaces.

### TYPICAL USES

SG Mastic provides a non-structural seal over CMS 10K cementitious mortar to protect the underlying structure from exposure to destructive gasses prevalent in manholes, lift stations, valve vaults, or other sewer treatment environments.

### PERFORMANCE SPECIFICATIONS

Hardness (ASTM D2240)		Shore D 85
Compressive strength (ASTM D695)	7 day	13,600 psi
Tensile properties (ASTM D638)	Strength	7680 psi
	Elongation at break	5 to 7%
	Modulus of elasticity	7.5 X 105 psi
Flexural properties (ASTM D790)	Strength	13,200 psi
	Modulus	733,200 psi
Bond Strength (ASTM C882)	14-day moist cure	3300 psi
Shear strength (ASTM D732)		4600 psi
Adhesive strength (ASTM D4541)	Concrete substrate failure @ 40 mils	250 psi
IZOD pendulum impact resistance of plastics (ASTM D256 - Method A)		C (complete break)
Permeability (ASTM E66-96)	40 mils	0% permeance @ 42 days
Abrasion resistance (ASTM D4060)	1000 cycles	Wt. loss 86.3 mg
Thinning		Not required
Temperature resistance	Dry	- 25 to 150°F

### CURING PROPERTIES

Pot life	50°F to 59°F	1 hour
	60°F to 79°F	.75 hour
	80°F to 100°F	.5 hour
Dry time	To touch	4 hours
	Recoat	When firm
	50°F to 59°F	16 to 72 hours
	60°F to 79°F	12 to 18 hours
	80°F to 100°F	8 to 12 hours

### PHYSICAL PROPERTIES

Mix ratio	Pre-proportioned units
Color after mixing	Gray
Pot life, 200 grams	40 minutes @ 77°F
Generic type	Amine-cured epoxy
Solids by volume	100%
VOC	0 lbs/gallon
Viscosity @ 25°C	225,000 cps
Coverage per gallon	16 ft <sup>2</sup> per gallon @ 100 mils
Number of coats	1 recommended
Coat thickness	100 mils minimum
Flash point	450°F

### CHEMICAL RESISTANCE

Reported in agent % increase (decrease) for Chemical & Solvent Resistance (ASTM D543 60T) testing of a 3" X 1" X 0.125" sample. \*

Methylated spirits	0.514
Distilled water	0.09
10% aq. sulfuric acid (H2SO4)	0.136
70% aq. sulfuric acid (H2SO4)	4.10
Gasoline - 90 octane	0.01
30 wt. SAE motor oil	0.02
Isopropyl alcohol	0.11
5% salt water	0.10
20% nitric acid (HNO3)	2.7
10% sodium hydroxide (NaOH)	0.086
50% sodium hydroxide (NaOH)	0.12
Methyl ethyl ketone	D
Xylene	D
10% acetic acid (HOAc)	6.14
10% hydrochloric acid (HCl)	1.40
30% hydrochloric acid (HCl)	0.088
20% ammonium hydroxide (NH4OH)	0.84
10% ammonium hydroxide (NH4OH)	0.81
95% ethyl alcohol	0.37
Acetone	2.1
Ethylene dichloride	1.5
Toluene	1.4
JP-4 fuel	(0.01)
10% citric acid	0.80
40% chromic acid	(5.82)
10% phosphoric acid	.11

\* Testing performed by AZS Corporation, 2525 S Combee Road, Lakeland, Florida, 33801.

# SG MASTIC

## TECHNICAL DATA SHEET



### ENVIRONMENTAL LIMITATIONS

Apply only in good weather, when air and surface temperatures are above 50°F and surface temperature is at least 5° above wet bulb temperature reading. For optimum application, bring product to between 70° and 90°F and maintain in heated storage prior to mixing and application. Exposing SG Mastic to dew or rain while uncured may impair the curing process as well as the adhesion of subsequent coats.

### SURFACE PREPARATION

Concrete surfaces must be clean, dry, properly cured and free from curing compounds, oil, grease, dirt, chemical contaminants, waxes, as well as previously applied coatings which are incompatible with SG Mastic. Brush or water blast to provide an etched surface and to remove contaminants and latents. Remove dust before coating. Apply SG Mastic as specified.

### MIXING

Mix only complete units. The *A Component* container is short filled to allow addition of *B Component*. Add *B Component* to *A Component* container and thoroughly blend with jiffy mixer for two to three minutes. Allow to stand a minimum of five minutes prior to application. DO NOT THIN the mixture. Usable life of mixed material is a function of material temperature. Use within time/temperature limits given in Pot Life section, above.

### APPLICATION

Apply to required thickness using gloved hand or spatula (125 mils recommended). After material has achieved an initial set (approximately 30 to 40 minutes), using a clean glove, dip gloved hand in recommended solvent. Solvent applied via glove will level previously applied SG Mastic to desired smoothness. Keep glove constantly wet with solvent. Solvent on surface will evaporate quickly. Where two coats of SG Mastic are required to achieve the required film thickness, the interval between coats should be as short as possible. To insure maximum inter-coat adhesion, it is recommended that: (1) the next coat be applied as soon as possible, after the previous coat is firm, and (2) if the previous coat has cured beyond the maximum recoat time given in Drying Time section above, uniformly abrade the surface by brush blasting or mechanical grinding to provide an adequate mechanical bond before recoating.

### CURING

Following application of the final coat, see Curing Properties above for detailed information on recommended cure time. Cure times are proportionately shorter at elevated temperatures and longer at lower temperatures. For immersion service, curing time is 12 hours at 77°F or higher.

### CLEAN UP

Clean all equipment immediately after use with Rainstopper #5 Cleaner or xylene.

### CONTINUITY TESTING

SG Mastic shall be tested for holidays at the specified voltage using a holiday detector to verify continuity of fully cured film. A suitable device is the Tinker-Razor Model M-1. Consult equipment manufacturer's voltage-per-mil-thickness of applied coating recommendation. Holiday areas should be sanded or brush-blasted, then re-coated over abraded areas only.

### SAFETY

**KEEP OUT OF REACH OF CHILDREN.** Take these precautions during application and before coating dries. Avoid breathing of vapor or spray mist. Avoid contact with eyes and skin. Use a barrier cream on exposed skin. Wash thoroughly after handling. In case of spillage, absorb and dispose of in accordance with local applicable regulations. Do not take internally. Use with adequate ventilation during application and drying. In tanks and other confined areas, use only with adequate forced air ventilation to prevent dangerous concentrations of vapors which could cause death from explosion or inhalation. Use fresh air masks, clean protective clothing, and explosion-proof equipment. Follow OSHA regulations regarding ventilation and respiratory equipment. Any mixture of *Components A* and *B* will inherit the associated hazards of each individual component. Contact Rainstoppers at (800) 843-4950 to obtain Material Safety Data Sheets for complete information on safety and handling.

### FIRST AID

In case of skin contact, wash thoroughly with soap and water. For contact with eyes, flush immediately and continuously with water for 15 minutes and call a physician. If affected by inhaling vapor, move to fresh air. If swallowed, call a physician immediately. Do not induce vomiting.

### IN CASE OF FIRE

Use dry chemical, foam, water fog, or CO2 to extinguish flames.