SPECIALIZED INDUSTRIAL MATERIALS

SIM Epoxy

SIM Epoxy is a quick set 100% solids self-leveling tough epoxy. It provides excellent adhesive characteristics while exhibiting good chemical, moisture and UV resistance. It can be used as a primer or as a final top-coat. It may be used in confined areas as it emits very low odor emissions. This material is used on metal, wood, fiberglass, concrete, masonry and other difficult to coat surfaces requiring a tough exterior coating. It may also be formulated with anti-corrosion additives to protect ferrous metals from oxidation. SIM Epoxy contains resins made from renewable resources.

SIM Epoxy may be applied using pressure pot or air-less spray, roll-on or brush-on. This epoxy system finishes glossy smooth when fully cured. This epoxy is to be used directly on clean dry surfaces and becomes tack free within 1 hour depending on ambient humidity and temperature. It is an excellent primer backbone for all Specialized Industrial Materials polymers and general topcoats. It retains a wide functional temperature range while yielding good flexibility from 25F to 150F. Full cure is achieved under normal drying conditions in 24 hours.

SIM Epoxy is available in 3 primary formulations:

289: clear and fast

351: low temp fast cure

319: clear slow top coat

Please contact our technical support group for specific substrate application procedures, equipment, safety gear and clean-up kits. Refer to the SDS for material and safety standard procedures.

SIM Epoxy PHYSICAL PROPERTIES		
Flex Modulus	ASTM D624	450k psi
Hardness (Shore D)	ASTM D785	80
Tensile Strength	ASTM D412	8610 psi
Elongation	ASTM D412	15%
Heat Deflection Temperature	ASTM D648	145 F
Taber Abrasion CS18	ASTM D4060	80
Mix Ratio	PBV	1A:2B

TECTECHNICAL APPLICATION DATA

Application substrates must be dry and clean from contaminates; free of loose rust, paint, moisture, dirt, oils, etc. This material is to be applied within 40°F to 100°F. Mix 1A:2B thoroughly with a hand drill jiffy mixer. Coating may be applied by roller, brush, air-less or pressure-pot sprayer. Spraying may require up to 10% solvent such as aromatic 100 or xylene. Pot life at 75°F is 30 min unless altered by solvent dilution, ambient temperatures and substrate temperature. Once rolled out, the working time is up to 2 hours. Recommended max wet per coat application film thickness is 16 mils. Coverage at 16 mils is 100 sq. ft. / mixed gal. If application surface exhibits extensive corrosion, normal forms of media blasting is recommended to create a secure surface preparation.

Adhesion Results of Typical Substrates per ASTM D-4541 Elcometer

Concrete- clean	>300 psi	Concrete cohesive failure; excellent bonding
Steel- clean	>1000 psi	Excellent bonding
Wood- dry/dust free	>250 psi	Wood failure; excellent bonding

Preparation of substrate surface prior to the application of a Specialized Industrial Materials is extremely important to achieve proper system bonding.

Concrete must be fully cured and should be prepared with a sandblasting, diamond grinding or machine sanding depending on the severity of the concrete surface condition. Similar proper preparation must be performed for metals. Primers also require this proper preparation. Always power clean using mild detergent prior to sanding, etc. Call our technical support group for assistance with selecting a Specialized Industrial Materials application system. If patching concrete, use mineral filled fast-set Acrylic Modified Epoxy applied by trowel. For expansion joints, use Joist Seal applied by hand cartridge dispensing gun. It is always best to perform a test within a small section of the application area prior to full scale engagement.

22820 Interstate 45 North Bldg. 2N • Spring, TX 77373 • Phone: (281) 850-0301 Fax: (866) 308-0009