

Specialized Industrial Materials

Impact Resident - High Chem Epoxy

TDS

High Impact - High Chem Epoxy is a versatile fast low-temperature curing Novolac epoxy with excellent chemical resistance such as resistance to 98% sulfuric and 37% HCL acids. It provides superior resistance to water spotting, even under adverse conditions, and is DOT non-corrosive. Nano silicone rubber particles have been incorporated in the matrix, this increases flexibility and reduces cracking.

This material is used in industrial flooring, chemically resistant tank linings, chemical handling equipment, chemical storage vessels and marine environments. It is used on metal, wood, fiberglass, concrete, masonry and other difficult to coat low temperature surfaces requiring a tough chemical resistant coating.

ChemEpoxy is 2-component mixture which may be applied using roller, brush or low-pressure pot spray. This material is to be used directly on clean dry contaminant-free surfaces and becomes tack free within 1 hour depending on ambient humidity and temperature. Full cure is achieved under normal drying humidity in 7 days at ambient temperature.

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



ChemEpoxy Physical Properties

Flex Modulus	ASTM D624	450 kpsi
Tensile Strength	ASTM D412	7610 psi
Elongation	ASTM D412	15%
Heat Deflection Temperature	ASTM D648	145 F
Taber Abrasion CS18	ASTM D4060	80
Mix Ratio	PBV	1A – 5B
Temperature resistance		Up to 200°F

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Adhesion Results of Typical Substrates per ASTM D4541 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

TECHNICAL APPLICATION DATA

Application substrates must be dry and clean from contaminants; free of loose rust, paint, moisture, dirt, oils, etc. This material is to be applied within 50°F to 100°F. Mix 1A hardener: 2B resin thoroughly with a hand drill jiffy mixer, sit a couple minutes then remix. Coating may be applied by roller, brush or pressure-pot sprayer. Spraying may require up to 10% solvent such as aromatic 100 or xylene. Working time (gel time) at 75°F is 40 min unless altered by solvent dilution, ambient temperatures and substrate temperature. Recommended max wet per coat application film thickness is 16 mils. Coverage at 16 mils is 100 sq. ft. / mixed gal.

Preparation of substrate surface prior to the application of a Specialized Industrial Materials™ LLC 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 Tech Support Group for assistance with selecting a S.I.M. application system. If patching concrete, use our 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.

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