

Superior Liquid Binder - Low Viscosity, 100% Solids, Very High Strength Mortar Binder

DESCRIPTION: SUPERIOR LIQUID BINDER is a low viscosity, two component epoxy designed specifically to be mixed with select gradations of dry silica sands to form an epoxy mortar system for repairing spalled areas and chuckholes, forming overlays, establishing grades and use in other concrete restoration and preservation applications. This mortar system possesses tensile, compressive and flexural strengths several times greater than the concrete being repaired.

USES: Binder for wear resistant floor resurfacing. Binder for patching mortars. Bedding mortar for acid-proof brick and tile. Protective, waterproof coating. Non-shrink grouts for settling and leveling machinery.

ADVANTAGES: Superior bonding properties. Low viscosity. High strength. 100% solids. Moisture tolerant.

SURFACE PREPARATION: Bare, clean, dry and structurally sound concrete surfaces are important to permit intimate welding contact of SUPERIOR LIQUID BINDER. The presence of grease, oil, wax, parting agents, organic coatings, direct loose particles, erosion or efflorescence will be detrimental and must be removed. This is equally true for any chemical treatments or additives used in the original installation of the concrete substrate. Such possible conditions should be predetermined and removed prior to the application of SUPERIOR LIQUID BINDER mortar or coating. New Concrete: Application should not be made until the concrete is fully cured. Washing with a solution of 10% muriatic acid, followed by thorough rinsing and neutralization with clear water, is highly recommended. Dense (Steel Troweled) Surfaces: Abrade or roughen by sandblasting or wire brushing - or wash with muriatic acid as above. Remove all dust etc. accumulated by mechanical cleaning. Old Concrete: Procedures, as outlined above, should be observed. Clean mechanically, by sand blasting, wire brushing, grinding or chipping. Restrict chipping only to the removal of disintegrated and spalled areas, to minimize the possible development of new superficial cracks. Remove all dust, dirt, and loosely bonded matter resulting from all mechanical cleaning. Acid washing, as indicated above, is also highly recommended to remove all foreign residues.

MIXING AND APPLICATION: Mix thoroughly 2 parts by volume of part A and 1 part by volume of part B. Prime the surface to be treated with the neat epoxy. Prepare the mortar system by adding 3-3 1/2 gallons of clean, dry sand

to each gallon of epoxy mix. Preferred types of sand are: hard, high grade silica sands such as Ottawa Flintshot, Mission, or their equivalents, Emery or other forms of Alumina, and Silicon Carbide. If a blend of sand is used, mix the sands together prior to adding the epoxy. Blend the epoxy and sand until the sand is thoroughly wetted. Screed the mortar out onto the previously primed area, rake it to distribute, then compact and trowel to finish. Blending may be accomplished by using a heavy duty, slow speed 1/2" electric drill with a paddle, a Kol mixer or a mortar pan and concrete hoe.

LIMITATIONS: Do NOT apply when temperature is below 50°F. Do NOT apply to latex modified mortar or concrete.

CLEAN UP: Clean tools and equipment immediately with a suitable solvent such as xylene or lacquer thinner.

PACKAGING: 3 gallon units, 15 gallon units, 150 gallon units

CAUTION: For professional use only. Epoxy systems can cause delayed dermatitis. Avoid prolonged contact with skin. See Material Safety Data Sheet for proper handling and required safety equipment.

Properties at 77° F	
Mix Ratio by Volume	2:1
Colors	Clear, Red, Gray, other colors available upon special order
Pot Life (100 Grams)	30-45 minutes
Coverage: Coating	100-150 sq. ft. gallon
Coverage: Mortar	37 1/2 sq. ft. @ 1/8" when mixed 3 parts aggregate
Physical Properties – 1:3 mortar	
Compressive Strength (ASTM C-579)	10,500 psi
Tensile Strength (ASTM C-307)	1,640 psi
Flexural Strength (ASTM C-580)	4,500 psi
Shore D Hardness (ASTM D-2240)	85-90 D
Bond Strength (ACL Committee #403)	100% Concrete Fail
Water Absorption (ASTM C-413)	<1%
Heat Deflection Temperature	140°F
Thermal Coefficient of Expansion (ASTM D-696)	2.2 x 10 (to the fifth power) in./in./deg.F
Shelf Life	1 Year