

# KEMKO<sup>®</sup> 022 SuperSEAL

Very Fast Set Paste  
Adhesive for Crack  
Sealing

- Type:** Two-component, solvent-free, non-sag, epoxy paste resin / hardener.
- Primary Use:** Surface sealing of cracks and delaminations in rigid construction materials in preparation for repair by pressure injection grouting.  
Preferred epoxy surface seal for cool ambient conditions and cold substrates.
- Substrates:** Concrete, masonry, stone (dry, damp or wet), steel and sealed wood.
- Minimum Temp:** Installation: 35° F, Cure: 35° F (substrate temperature).
- Color:** Concrete gray (blue-gray).
- Coverage:** 200 - 350 lineal feet/gallon (approx.) in crack sealing applications
- Shelf Life:** Three years minimum in sealed containers (see below for conditions).

The properties listed in this bulletin are typical and descriptive of the product and should not be used for specification purposes. For specification preparation, reference the specification of this product available from ChemCo Systems, Inc. This product is available only through KIP System™ (KEMKO Injection Process)

**Description:** KEMKO<sup>®</sup> 022, SuperSEAL is a two-component, non-sag, epoxy paste adhesive designed for sealing cracks and delaminations in concrete, masonry, stone, steel and sealed wood in preparation for repair with KIP System pressure injection grouting. It is ideally suited for surface sealing in cool and cold environments. KEMKO 022 bonds to dry and damp substrates and can be applied up to 1/8 inch thick without sag or flow. The components do not contain volatile organic compounds (VOC's).

**Features:** The fast cure and excellent handling characteristics of KEMKO 022 make possible application over a wide range of substrate temperatures and minimizes the interval between crack sealing and pressure injection grouting particularly at low ambient and substrate temperatures. It has a convenient 1:1 (by vol.) mixing ratio and is formulated for similar A and B component viscosities for ease of mixing. Contrasting component colors provides a visual key to proper proportioning and thorough mixing. The buttery consistency and high cured film hardness enhance the production rates for seal application and subsequent removal.

**Limitations:** The recommended minimum substrate temperature during installation is 35° F. **KEMKO 022 has been reformulated to minimize the odor of the sulfur-based accelerated hardener.** In warm weather, the short work life of mixed product may limit its usefulness.

**Packaging:** Standard package size of Part A + Part B is a 2 gallon unit.

**Shelf Life:** Three years minimum in unopened, original containers when stored between 60 and 90 deg. F in a dry place away from sunlight. Remixing of components may be required upon prolonged storage.

**Chemical Resistance:** KEMKO 022 has excellent resistance to a wide range of commonly encountered chemicals including acids and bases, aircraft and automotive fluids, petroleum fuels, cutting oils, etc. It has limited resistance to hydrocarbon solvents. Performance is a function of the specific chemical and concentration, ambient and solution temperature, exposure time and housekeeping procedures. For information on specific chemicals and exposure conditions, contact a ChemCo Systems, Inc., technical representative

**Color Selection:** The standard color of the mixed components is concrete gray (blue-gray). Custom colors may require minimum quantities and/or slightly higher cost.

**Surface Preparation:** Substrate surfaces may be dry or damp but must be sound and free of all bond-inhibiting substances. Prepare surfaces for bonding in accordance with *ASTM D 4259, "Standard Practice for Abrading Concrete,"* or *ACI 503R, Chapter 5, "Preparing Surfaces for Epoxy Compound Application,"* and ChemCo Systems, Inc.'s specific recommendations. Properly prepared concrete surfaces should have a minimum strength of 250 psi in direct tension. Steel surfaces should be cleaned to "white metal" according to SSPC SP 5.

**Mixing:** KEMKO 022 is a two-component adhesive. The resin to hardener (Part A : Part B) mix ratio is 1 : 1, by volume. KEMKO 022 is a short working life/fast-curing material; use quantities that can be applied before the working life of the mixed material expires. For crack sealing, transfer the appropriate quantities of Part A and Part B onto a palette and manually mix with a margin trowel until streak-free and uniform in color. Wear safety glasses and clean neoprene rubber gloves when handling the material.

**Installing:** The KIP System, its products and equipment are only available from KEMKO licensee/applicators. For crack sealing applications, spread a thin layer of KEMKO 022 over the crack taking care to force material into the crack. Allow for adequate cure of the adhesive before beginning pressure injection grouting. For additional application information, see *ACI 503R, Chapter 7, "Applying Epoxy Compounds."*



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## Typical Properties (1)

Property	Test Method	Value
Mix Ratio, A: B,	by vol	1: 1
	by wt	100 : 100
Color:	Part A	White
	Part B	Black
	Mixed	Concrete gray
Weight per Gallon, lb:	Part A	11.8
	Part B	11.8
	Mixed	11.8
Viscosity, p:	Part A	5600
	Part B	440
	Mixed	300
Non-Sag Thickness, inches	ASTM D 2730	1/8
Gel Time, 100 g, minutes: @ 73° F	ASTM D 2471	7
	@ 40° F	18
Compressive Yield Strength, psi	ASTM D 695	7800
Compressive Modulus, psi	ASTM D 695	315,000
Time To Bond Strength	ASTM D 4541	
Greater than Mortar, hours @ 73° F		45(2)
(ASTM C 109) @ 40° F		75(2)
Heat Deflection Temp, deg. F	ASTM D 648	110

(1) Cure schedule, 7 days at 73° ± 4° F and test temperature, 73° ± 4° F unless otherwise indicated.

(2) Compressive strength of cement mortar, 4500 psi.

**Clean up:** All tools and equipment must be cleaned before the mixed material cures. Cleaning can be facilitated with a solvent such as acetone or heavy-duty detergents. Cured material may be removed from equipment and tools by soaking in an epoxy stripper. Household bleach (Clorox) may be effective in removing residual mercaptan (Part B) odor from tools, equipment and clothing.

**Handling and Toxicity:** This bulletin does not accompany the product when sold. For hazard warnings, safe handling and first aid instructions.

**READ CAREFULLY THE MATERIAL SAFETY DATA SHEETS AND CONTAINER WARNING LABELS.**

**Part A:** Liquid epoxy resin, HMIS Health Hazard Rating- 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skin reaction. Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin.

**Part B:** Liquid epoxy hardener, HMIS Health Hazard Rating- 2 (Moderate Hazard). Contains poly mercaptan. Warning! Causes eye and skin irritation. May cause allergic skin and respiratory reaction. Do not get in eyes or skin or on clothing. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

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KEMKO® and KIP System are trade names of ChemCo Systems, Inc.

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