

Type:	Two-component, non-sag, polyurea paste resin / hardener.
Primary Use:	Surface sealing of cracks and delaminations in concrete and masonry in preparation for repair by pressure injection grouting.
Substrates:	Concrete and masonry (dry surfaces only).
Features:	Peels from surface without damage to substrate.
Applications:	Surface sealing of horizontal, vertical and overhead cracks.
Minimum Temp:	Installation- 40 F, Cure- 0 F (substrate temperature).
Color:	Concrete gray (blue-gray).
Coverage:	200 - 350 lineal feet / gallon (approx.).
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) licensee/applicators.

Description: KEMKO 136, StripSEAL is a two-component, non-sag, polyurea paste adhesive designed for sealing cracks and delaminations in concrete and masonry in preparation for repair with KIP System pressure injection grouting. KEMKO 136 is specifically designed for quick and easy manual removal from the repaired crack. The short working life and cure time make it well suited for sealing cracks in cool environments. KEMKO 136 is for use on dry substrates only and can be applied at 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 136 make possible application over a wide range of substrate temperatures and minimizes the interval between crack sealing and pressure injection grouting. Following initial cure of the injection resin, KEMKO 136 crack sealer may be "stripped" from the surface of the repaired crack by pulling on tabs embedded in the seal at the time of application or by prying-up on a leading edge of the seal with a putty knife, trowel or similar tool. KEMKO 136 is low in odor and may be considered for interior applications with adequate ventilation. It has a convenient 1:1 (by vol.) mixing ratio and is formulated for easy measuring, mixing and application. Contrasting component colors provide a visual key to proper proportioning and thorough mixing. The cured material exhibits generally poor color stability with moderate discoloration and chalking when exposed to direct sunlight.

Limitations: The recommended minimum substrate temperature during installation and for cure is 40 deg F. Do not apply on damp or wet substrates (dry surfaces only). Do not add solvents or otherwise thin this material.

Packaging: Standard package size of Part A + Part B is a 2 gallon and 10 gallon unit.

Shelf Life: One year minimum in unopened, original containers when stored between 50 and 90 deg F in a dry place away from sunlight. Remixing of components may be required upon prolonged storage. Partially used containers of Part A must be flushed with nitrogen and resealed immediately after use to preserve shelf stability.

Chemical Resistance: KEMKO 136 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 temperatures, exposure times 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 are available and may require minimum quantities and/or slightly higher cost.

Surface Preparation: Substrate surfaces must be dry, sound and free of all bond inhibiting substances. The bond strength of KEMKO 136 to the substrate is primarily determined by the method and depth of substrate surface preparation. For most pressure injection grouting applications (mix head pressures less than 100 psi), wire brushing the crack and adjacent substrate surfaces followed by blowing clean with oil-free compressed air is sufficient preparation. For pressure injection grouting applications using higher mix head pressures, light sandblasting, grinding or roughening of the substrate is recommended. The ease of seal removal decreases as the depth of substrate surface preparation increases.

Mixing: KEMKO 136 is a two-component system. The resin to hardener (Part A: Part B) mix ratio is 1:1, by volume. KEMKO 136 is a short working life/fast curing material; use quantities that can be applied before the working life of the mixed material expires. Wear safety glasses and clean neoprene rubber gloves when handling the material. 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. To mix larger quantities, combine Parts A and B and immediately begin mixing with a Jiffy mixer blade attached to a low speed (350-750 rpm) electric or pneumatic drill motor. Other tools such as paint sticks, spatulas, margin trowels, etc., may not provide adequate mixing in a short period of time. Mix thoroughly for approximately 30 seconds. Place the used mixing blade in solvent immediately after mixing. Transfer mixed material onto palettes. This extends working life by minimizing the build-up of mass related exothermic heat.

Installing: The KIP System, its products and equipment are only available from KEMKO licensee/applicators. For crack sealing, spread a thin layer of material over the crack with a putty knife or margin trowel taking care not to force material into the crack. Immediately embed pull tabs in the material. Tabs, approximately 1/2 inch wide and several inches long may be made of any material that serves the purpose-cloth, duct tape, fiberglass mat, etc. Pull tabs may be omitted in favor of prying loose the leading edge of the seal and peeling the material from the substrate.



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Typical Properties (1)

Property	Test Method	Value
Mix Ratio, A:B, by vol by wt		1: 1 100: 91
Color: Part A Part B Black Mixed	VISUAL	White Concrete blue-gray
Weight per Gallon, approx., lb: Part A Part B Mixed	ASTM D 1475	9.4 8.6 9.0
Viscosity, poise: Part A Part B Mixed	ASTM D 2393	3000 7000 5000
Non-Sag Thickness, inches	ASTM D 2730	1/8
Gel Time, 100 g, minutes: @ 40 F @ 73 F	ASTM D 2471	9 4
Time To Bond Strength Greater Than 200 psi, minutes: @ 40 F @ 73 F	ASTM D 4541 (2)	90 (2) 30 (2)
Bond Strength Development @ 73 F, psi Cure Time, minutes 30 60 90	ASTM D 4541 (2)	200 (2) 350 (2) 400 (2)

- (1) Cure schedule, 7 days at 73 ± 4 F and test temperature, 73 ± 4 F unless otherwise indicated.
 (2) ASTM C 109 cement mortar; compressive strength, 4500 psi. Bonding surfaces prepared by sandblast.

Allow for adequate cure of the polyurea seal before beginning pressure injection grouting of epoxy adhesive (approx. 1 hour @73 deg F, 3 hours @ 40 deg F). The seal is sufficiently cured for pressure injection grouting when it resists indentation by finger pressure. (Note: Due to the material's reaction with atmospheric moisture, the surface cure of the applied seal is faster than the bulk cure. Absence of surface tackiness should not be used as an indicator of bulk cure.) Stripping the seal removes a thin layer of the substrate surface and leaves a slightly darkened surface. If desired, the roughened and darkened surface may be dressed by light sandblasting or grinding. Allow for adequate cure of the epoxy adhesive before removing the seal.

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.

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- 3 (Serious Hazard). Contains alkaline amines. Danger! Causes severe eye and skin irritation. May cause allergic skin and respiratory reaction, Combustible, corrosive. Do not get in eyes 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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