KEMKO® 136 StripSEAL

INJECTION SEAL – NON-SAG POLYUREA CRACK SEALER FOR CONCRETE AND MASONRY SUBSTRATES

TECHNICAL DATA SHEET

PRODUCT IS ONLY AVAILABLE TO KEMKO® APPLICATORS IN U.S., CANADA, AND INTERNATIONAL CUSTOMERS

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 epoxy pressure injection using KIP™ (KEMKO® Injection Process) System. It is applied to dry concrete or masonry substrates at 1/8 inch without sagging and it cures quickly (even at colder temperatures). It is available in cartridges or bulk. After the injection resin gels and begins to cure the KEMKO® 136 StripSEAL™ is removed by peeling it off. Eliminating the need for grinding it off, saving time and reducing the marring (concrete scaring) caused by grinding. It is ideal for sealing decorative concrete where grinding would mar the surface. It does cause the concrete substrate to look clean when it is removed. When maintaining the concrete's decorative appearance is vital, spray the surface to be sealed and the surrounding concrete surface with a 20% or 40% percent water-based silane penetrating sealer before applying KEMKO® 136 StripSEAL™. It contains no VOC's (volatile organic compounds).

FEATURES

KEMKO® 136 StripSEAL™ is fast cure sealer with excellent handling characteristics formulated to cure over a wide range of substrate temperatures, which minimizes the interval between crack sealing and pressure injection grouting. Following initial cure of the injection resin, KEMKO® 136 StripSEAL™ 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, margin trowel, or similar tool.

- Low odor prior to cure and may be considered for interior applications with adequate ventilation.
- Available in cartridges or bulk.
- Convenient 1:1 (by vol.) mixing ratio and is formulated for easy measuring, mixing, and application.
- For quality control, each component is a different color. When properly mixed the color will be a uniform concrete blue-gray.
- If not removed, the cured material will not be UV color stable with moderate discoloration and chalking when exposed to direct sunlight.

LIMITATIONS

The minimum substrate temperature for cure Is 40°F (4.4°C).

- Do not apply to damp or wet substrates (dry surfaces only)
- Do not add solvents or otherwise thin this material.

PACKAGING

Standard kit sizes of Part A + Part B: 2 gallons (7.57 l.) kits. Available in 600 ml Cartridges.

SHELF LIFE AND SHIPPING

One year maximum in unopened, original containers when stored between 60 and 90°F (15.6°C and 32.2°C) in a dry place away from sunlight. Remixing of components may be required upon long-term storage.

TECHNICAL DATA

7 days 73°F (23°C) unless otherwise indicated. Compressive strength of cement mortar 4,500 psi (13.0 MPa).

PHYSICAL PROPERTIES		TEST METHOD	VALUE
Mix Ratio by Volume			1:1
Mix Ratio by Weight			100:91
Color	**Part A** **Part B** **Mixed**	VISUAL	White Black Concrete Gray-Blue
Weight per Gallon	**Part A** **Part B** **Mixed**	ASTM D1475	9.4 lbs. (4.3 kg) 8.6 lbs. (3.7 kg) 9.0 lbs. (4.1 kg)
Viscosity	**Part A** **Part B** **Mixed**	ASTM D2393	3000 7000 5000
Non-Sag Thickness, inches		ASTM D 2730	1/8 (2.175 mm)
Gel Time, 100 g	**40° F (4°C)** **73° F (23°C)**	ASTM D 2471	9 minutes 4 minutes
Time to Develop Bond Strength Greater than 200 psi (1.4 MPa)	**40° F (4°C)** **73° F (23°C)**	ASTM D7234	90 minutes 30 minutes
Bond Pull-Off Strength to Concrete, Strength 1. Development Cure Time	**30 Minute** **60 Minutes** **90 Minutes**	ASTM D7234	200 psi (1.4 MPa) 350 psi (2.4 MPa) 400 psi (2.8 MPa)

ChemCo Systems

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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.

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' Technical Consultant

SURFACE PREPARATION

Substrate surfaces must be dry or damp, sound and free of all bond-inhibiting substances for sealers used as epoxy dams. Prepare surfaces in accordance with ICRI (International Concrete Repair Institute) Guideline No. 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair, Concrete Surface Profile, CSP 1 to CSP 4. The concrete surfaces should have a minimum strength of 250 psi (1.72 MPa) in direct tension per ASTM C1583 Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method). Steel surfaces should be cleaned to "white metal" according to SSPC-SP 5/NACE No.1 White Metal Blast Cleaning is a standard used for white metal blast cleaning put forth by the SSPC (Society for Protective Coatings) and NACE (National Association of Corrosion Engineers) international standard.

MIXING

KEMKO® 136 is a two-component product. The resin to hardener (Part A: Part B) mix ratio is 1:1, by volume. It is a short work life and 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. Allow for adequate cure of the polyurea seal before beginning pressure injection grouting of epoxy adhesive (approx. 1 hour, 73°F (23°C), 3 hours, 40°F (4°C). 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.

SAFETY

This bulletin does not accompany the product when sold. For hazard warnings, safe handling, and first aid instructions, CAREFULLY READ THE 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 amine hardener, HMIS Health Hazard Rating-2 (Moderate Hazard). Contains alkaline amines. Warning! Causes eye and skin irritation. May cause allergic skin and respiratory reaction. Combustible, corrosive. 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.

TECHNICAL SUPPORT

Additional information, technical assistance, and management services are also available from a ChemCo Systems' Technical Consultant at sales@chemcosystems.com or 650-261-3790.

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. This product is available only through KIP ™ System applicators.

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PROJECT NOTES

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