

KEMKO® 064 HB

High Build Epoxy
Control Joint Filler and
Traffic Loop Sealant

Control Joint/Loop Sealant

Type:	Two-component, solvent-free, epoxy resin / hardener.
Primary Use:	Flexible filler and sealant for saw cut control joints, wire slots and traffic loops. Bonding precast concrete curbing.
Special Feature:	Meets FAA Specification, Item P-606 for in-pavement runway and taxiway lighting.
Substrates:	Concrete, masonry, stone, asphalt and steel. Dry surfaces only.
Minimum Temp:	Installation: 50° F, Cure: 50° F (substrate temperature).
Color:	Black and concrete gray (blue-gray).
Finish:	Smooth or variable texture with aggregate broadcast.
Coverage:	As a joint filler, 0.13 cu ft/gal.
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® 064 HB, Control Joint/Loop Sealant is a two-component, fast curing, flexible, epoxy control joint filler and wire slot and traffic loop sealant with high viscosity for controlled flow. The cured product has excellent impact and energy absorbing properties and is resistant to deicing chemicals and most aircraft and automotive fluids. Its low water absorption and high dielectric strength make it ideally suited for embedding and sealing wire and traffic detection loops in concrete and asphalt pavements and for filling properly prepared saw cut control joints in interior concrete slabs. KEMKO 064 HB meets the requirements of *FAA Specification ITEM P-606*. Additional uses include bonding of precast concrete curbing to concrete and asphalt substrates.

Features: Unlike many other flexible, epoxy joint fillers, KEMKO 064 HB exhibits excellent resistance to water, aqueous salt solutions, most auto and aircraft fluids, does not embrittle when exposed to sunlight for long periods of time and is environmentally safe. The controlled flow makes it ideally suited for use on sloping and uneven surfaces. It has a convenient 1:1 (by vol.) mixing ratio and is formulated for single pour, high-build applications. The components do not contain volatile solvents (VOC's).

Limitations: Substrates must be dry. The minimum substrate temperature during application and initial cure period (18 - 36 hr) is 50 deg F. KEMKO 064 HB is not elastomeric and, therefore, is not recommended for use in exterior joint filling applications, expansion joints and joints subject to significant movement or flexing. Do not add solvents or otherwise thin this material.

Packaging: Standard package sizes of Part A + Part B are 2, 10 and 100 gallons.

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

Chemical Resistance: KEMKO 064 HB is resistant to a wide range of commonly used aircraft and automotive chemicals including jet fuels, gasoline, selected hydraulic fluids, anti-freeze and battery acid. 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: Standard colors are black and 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. 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 064 HB is a two-component adhesive. The resin to hardener (Part A: Part B) mix ratio is 1:1, by volume. Premix the individual components before drawing from bulk packaging. Wear safety glasses and clean neoprene rubber gloves when handling the material. KEMKO 064 HB is a short working life/fast-curing adhesive. Use quantities that can be applied before the potlife of the mixed material expires. Transfer the appropriate quantities of Part A and Part B into a mixing container. Blend thoroughly using a Jiffy mixer blade attached to a low speed (350 - 750 rpm) electric or pneumatic drill. Proper mixing will take 2 - 3 minutes.

Installing as Joint Filler/Loop Sealant: Transfer mixed material to a pour can with a spout sized for the joint or slot to be filled. Fill the joint in a single application. For a filled surface flush with the surrounding substrate, overfill slightly the joint until a crown of material is formed. Following cure, excess material (high spots) can be removed using a hot air stream (heat gun recommended) and cutting with a sharp blade. For additional application information, see *ACI 503R, Chapter 7*, "Applying Epoxy Compounds."

Yield as Joint Filler/Loop Sealant:

The following material estimates do not take into consideration material lost in mixing and application or excess material for overfilling the joint or slot.

Joint Dimensions, inches		Approx. Coverage
Width	Depth	Lineal feet/gallon
1/2	1/4	154
1/2	3/8	102
3/4	3/8	68
3/4	1/2	51
1	3/4	25



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Typical Properties (1)

Property	Test Method	Value
Mix Ratio, A:B,	by vol	1 : 1
	by wt	100 : 86
Color:	Part A	Blue-gray or black
	Part B	Clear amber
	Mixed	Blue-gray or black
Weight per Gallon, lb: Part A	ASTM D 1475	11.4
	Part B	9.8
	Mixed	10.7
Viscosity, P:	Part A	215
	Part B	175
	Mixed	190
Gel Time, minutes: 1 quart	ASTM D 2471	15
	1 gallon	12
Thin Film Cure Time, hours:	ASTM D 1640	
	tack-free	4
	hard dry	6
Tensile Strength, psi	ASTM D 638	1400 (2)
Elongation at Break, %	ASTM D 638	90 (2)
Hardness, Shore D	ASTM D 2240	62

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

(2) Tested at crosshead speed of 2.0 inches/minute.

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- 2 (Moderate Hazard). Contains alkaline amines. Warning! Causes severe 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.

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